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VOCATIONAL-TECHNICAL TEACHER EDUCATION--NATIONAL SEMINAR PROCEEDINGS (SEPTEMBER 24-29, 1967). LEADERSHIP 15.

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APPROXIMATELY 300 TEACHER-EDUCATORS AND NATIONAL LEADERS AND EXPERTS IN EDUCATION AND RELATED DISCIPLINES FROM 46 STATES, TWO TERRITORIES, AND TWO CANADIAN PROVINCES PARTICIPATED IN A SEMINAR TO IDENTIFY ALTERNATIVE APPROACHES FOR IMPROVING PROGRAMS IN PREPARING AND UPGRADING VOCATIONAL TEACHERS. MAJOR SPEECHES INCLUDED--(1) "URGENCY OF THE DEMAND FOR VOCATIONAL-TECHNICAL TEACHERS" BY G. VENN, (2) "AREAS OF CRITICAL IMPORTANCE IN VOCATIONAL-TECHNICAL TEACHER EDUCATION" BY M.L. BARLOW, (3) "THE ECONOMICS OF LEARNING TO WORK" BY H.F. CLARK, (4) "THE ROLE AND STATUS OF VOCATIONAL-TECHNICAL EDUCATION" BY A. WIDENER, (5) "EMERGING APPROACHES IN THE PROFESSIONAL EDUCATION OF VOCATIONAL-TECHNICAL TEACHERS" BY L.D. HASKEW, (6) "CONTRIBUTIONS OF THE BEHAVIORAL SCIENCES TO TEACHER EDUCATION" BY R.W. TYLER, (7) "RECENT DEVELOPMENTS IN PROVIDING MAJOR FIELD CONTENT EDUCATION" BY G.I. SWANSON, AND (8) "AN APPROACH TO PROVIDING VOCATIONAL TEACHERS WITH EXPERIENCE IN THE OCCUPATION THEY TEACH" BY W.G. MEYER. SPEECHES AND DISCUSSION SUMMARIES ARE INCLUDED FOR THREE VOCATIONAL SERVICE AREA GROUP SESSIONS CONCERNED WITH IMPLICATIONS OF THE MAJOR TOPICS FOR AGRICULTURAL, BUSINESS AND OFFICE, DISTRIBUTIVE, HOME ECONOMICS, TECHNICAL, AND TRADE AND INDUSTRIAL EDUCATION. SPECIAL INTEREST GROUP SESSIONS EXPLORING MAJOR TOPIC IMPLICATIONS FOR EDUCATING HIGH SCHOOL, POST-HIGH SCHOOL, ADULT, SPECIAL NEEDS, AND LEADERSHIP DEVELOPMENT TEACHERS ARE REPORTED. THIS DOCUMENT IS AVAILABLE FOR $3.25 FROM THE CENTER FOR VOCATIONAL AND TECHNICAL EDUCATION, THE OHIO STATE UNIVERSITY, 980 KINNEAR ROAD, COLUMBUS, OHIO 43212. (MM)

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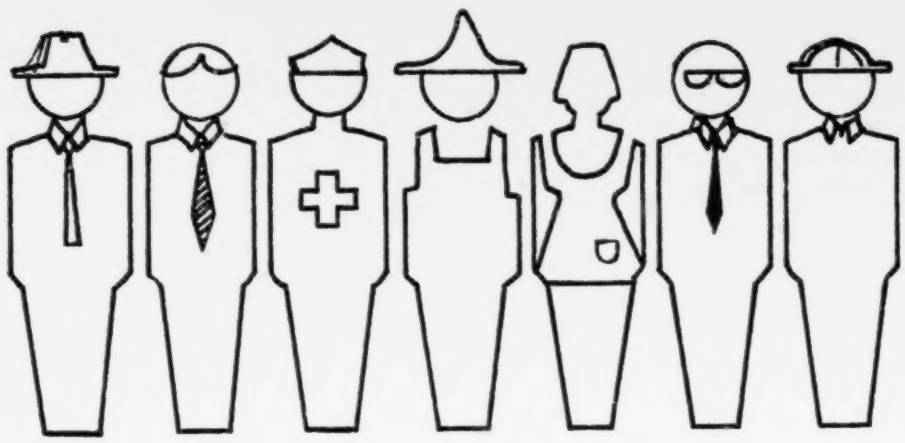
LEADERSHIP 15

VOCATIONAL-TECHNICAL TEACHER EDUCATION: NATIONAL SEMINAR PROCEEDINGS



THE CENTER FOR
VOCATIONAL AND
TECHNICAL EDUCATION

THE OHIO STATE
UNIVERSITY

980 KINNEAR RD.
COLUMBUS, OHIO 43212

The Center for Vocational and Technical Education has been established as an independent unit on The Ohio State University campus with a grant from the Division of Adult and Vocational Research, U. S. Office of Education. It serves a catalytic role in establishing a consortium to focus on relevant problems in vocational and technical education. The Center is comprehensive in its commitment and responsibility, multidisciplinary in its approach, and interinstitutional in its program.

The major objectives of The Center follow:

1. To provide continuing reappraisal of the role and function of vocational and technical education in our democratic society;

2. To stimulate and strengthen state, regional, and national programs of applied research and development directed toward the solution of pressing problems in vocational and technical education;

3. To encourage the development of research to improve vocational and technical education in institutions of higher education and other appropriate settings;

4. To conduct research studies directed toward the development of new knowledge and new applications of existing knowledge in vocational and technical education;

5. To upgrade vocational education leadership (state supervisors, teacher educators, research specialists, and others) through an advanced study and in-service education program;

6. To provide a national information retrieval, storage, and dissemination system for vocational and technical education linked with the Educational Research Information Center located in the U. S. Office of Education;

LEADERSHIP 15

VOCATIONAL-TECHNICAL TEACHER EDUCATION: NATIONAL SEMINAR PROCEEDINGS

HELD SEPTEMBER 24 THROUGH 29, 1967

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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THE CENTER FOR VOCATIONAL AND TECHNICAL EDUCATION
THE OHIO STATE UNIVERSITY
980 KINNEAR ROAD
COLUMBUS, OHIO 43212

FEBRUARY 1968

PREFACE

Three hundred and three participants from forty-six states, two territories and two Canadian Provinces registered for this first National Seminar on Vocational-Technical Teacher Education. The purpose of the seminar, conducted in Chicago from September 24-29, 1967, was to identify alternative approaches for improving programs in the preparation and upgrading of vocational teachers.

It was the intent of the seminar planning committee and The Center for Vocational and Technical Education staff to bring together national leaders and recognized experts in education and other related disciplines to focus on the conerns of vocational-technical teacher education. These leaders and experts acted as resource persons and interacted with vocational-technical teacher educators in this appraisal of innnovative and promising approaches to educating and training teachers of vocational and technical education.

This report is a compilation of the major speeches delivered during the seminar and the reactions of vocational-technical teacher educators to these main addresses. In addition, the presentations and the discussions within each of two series of special interest sessions are also included in this report. These special interest sessions were devoted to the implications of the major papers to the vocational service areas--agriculture, business and office, distributive education, home economics, trade and industrial, and technical education as well as the applications of these papers to interests or levels such as high school, post-high school, adults, persons with special needs, and leadership development.

The vocational-technical education profession and The Center for Vocational and Technical Education acknowledge their gratitude to The Sears-Roebuck Foundation for partially underwriting the expenses of this seminar.

Particular recognition is due to Neal E. Vivian, specialist in distributive education at The Center for Vocational and Technical Education, who served as seminar director; to other members of The Center staff for their valuable assistance, to the Seminar Planning Committee, whose members are recognized elsewhere in this report; and to Kenneth E. Hoffman, research associate in distributive education.

Robert E. Taylor
Director
The Center for Vocational and
Technical Education

INTRODUCTION

Several seminars, conferences and workshops have been conducted for teacher education in specific vocational service areas. This was the first national seminar concerned with the preparation of teachers in all areas and levels of vocational-technical education.

In an attempt to accomplish the stated objectives and purposes of the seminar, nationally recognized experts not only in vocational education but in teacher education and the behavioral sciences were involved.

Basic topics covered were: the projected demand for vocational-technical teachers, emerging approaches to professional education of teachers, innovative approaches in providing occupational experiences for teachers, recent developments in providing major field content, and the contributions of the behavioral sciences to vocational teacher education.

Each of these topics was treated in a general session with a major paper presented by a recognized leader followed with the reactions of vocational educators and other specialists.

Following the general sessions the conferees were divided into small groups to further explore the implications of these major topics. The participants were grouped first by level, such as high school, post high school, adult education, etc., and later by vocational service areas, thus allowing for a more extensive examination of the problems.

Because of the success of this conference and the continuing interest shown in this problem, additional vocational teacher education seminars are being planned. It is intended that this seminar will be the initial step in a long-range continuing program in the improvement of vocational-technical teacher education.

Neal E. Vivian
Specialist in Distributive Education

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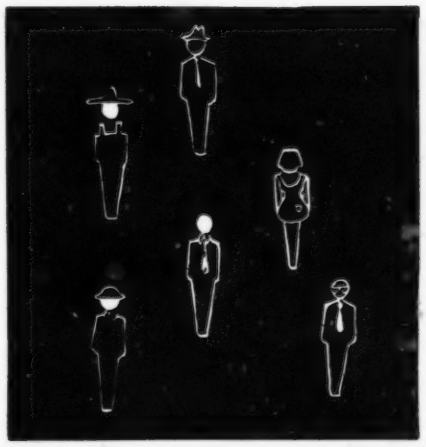

VOCATIONAL-TECHNICAL TEACHER EDUCATION: NATIONAL SEMINAR PROCEEDINGS

HELD SEPTEMBER 24 THRU 29, 1967
PICK-CONGRESS HOTEL, CHICAGO

PURPOSES AND OBJECTIVES OF THE SEMINAR

National Vocational-Technical Teacher
Education Seminar
September 24, 1967
Pick-Congress Hotel
Chicago

Robert E. Taylor*

On behalf of my co-workers at The Center, I would like to welcome you to this first national vocational teacher education seminar. It is obvious that you share our interest and concern in this topic as evidenced by your attendance. It is a most significant occasion when 303 state and national leaders from 46 states and two countries and two territories gather to pool their insights and experiences in improving and extending vocational teacher preparation. May I remind you that the strategy of the seminar requires your active participation and contributions.

With your permission I would like to quickly review the importance of this meeting and focus briefly on its purposes and objectives.

Perhaps the most serious deterrent to the continued improvement and expansion of vocational and technical education is the growing shortage of well-qualified teachers and other leadership personnel. The importance of teacher education to a sound program of vocational education has been recognized since the beginning of the program. One of the hallmarks of the Smith-Hughes Act was its recognition of the importance of teacher education. Other national commissions and advisory groups including the President's Panel of Consultants have revalidated and reinforced the vital role assigned teacher education. The Vocational Education Act of 1963 further extends our opportunities and responsibilities in this area.

In one of his messages, the late President Kennedy issued the following challenge:

> Our twin goals must be a new standard of excellence in education and the availability of such excellence to all who are willing and able to pursue it.

If we are to meet this challenge, then we all recognize, I am sure, that vocational and technical education will be only as good as those who teach it, or, stated differently, it can be no better than those who teach it.

The availability of high quality vocational and technical education also will be dependent upon an adequate supply of well-trained teachers. Thus, the improvement and expansion of teacher education programs becomes an activity of highest priority in a period when employment opportunities will be brightest for those who possess sound occupational preparation.

The impact of technological developments, coupled with the fantastic increase of information, soaring school enrollments, new research and innovations in instruction, and the implications of educational technology, all demand new directions in teacher education.

During the seminar we may wish to consider how can we more effectively articulate vocational and technical education and teacher preparation with other levels and elements of education? How can we optimize the role of the professional, scientific, and business communities in the preparation of vocational teachers? What are the implications of differentiated staffing? Team teaching? Interservice programs? Ungraded classes? Microteaching for vocational teacher preparation?

In this time of accelerated change with reduced tolerance for error, we must not only keep abreast of research and innovation in our own and supporting fields, we

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*Robert E. Taylor, director, The Center for Vocational and Technical Education, The Ohio State University.

must provide vision and leadership in initiating creative and imaginative approaches to improving both the effectiveness and efficiency of vocational teacher education.

It has been projected that by 1975 the enrollment in vocational education programs will be over 14 million students. When this figure is compared to the 6.8 million students enrolled in these programs in 1967, the need for more teachers is dramatically evident. The demand for teachers will be especially high at the post high school level.

Further, new types of teachers will be needed. It appears our problems will not be totally solved with "more of the same."

All of these factors point to the need to recruit and place competent individuals in teaching positions. The solution to this problem will lead directly to another task: if increased numbers of students are to be trained as teachers in vocational and technical fields, new techniques must be initiated at the university level to effectively handle the larger numbers. Efficient use of current staff time and university facilities is a crucial item.

Lowell Burkett, executive director of the American Vocational Association, points out that forty-six thousand additional leadership personnel are needed for projected expansion of vocational education during the next three years. However, in our zeal to meet "production quotas" to provide the needed numbers of teachers, we must not lose sight of the quality implications in our preparation programs.

Within vocational education itself recent developments further underscore the necessity for a concerned attack upon the problem of improving both the quantity and quality of teachers so that we may adequately staff expanding programs. Among these new developments are:

1. The inclusion of business and office education within the family of reimbursed vocational programs;
2. The increased emphasis on off-farm agricultural occupations and the post high school technical programs in agricultural education;
3. The enrollment in distributive education to include other than employed persons;
4. The occupational preparation emphasis in home economics education;
5. The expanding role of technical education due to growing applications of technology in the new and emerging occupations;
6. The trend toward post-high school education;
7. The provisions in the Act to support instruction in content as a part of the teacher education program;
8. Increased emphasis on programs for the disadvantaged. (As an aside comment, I believe we are confronted with one of our greatest challenges and opportunities in the history of our profession--to develop effective programs for the disadvantaged. With the national unemployment rate down to almost 3½ percent, over 20 percent of the young people in our country between the ages of 16 and 22 are unemployed. Over 30 percent of the Negro youth in this same age group are unemployed. New programs and new teachers are needed.)

For these and other reasons, leaders in vocational education are unanimous in their concern for bettering teacher education. No aspect of our program has greater urgency.

It is the intent of this seminar to bring together national leaders and recognized experts in education and other related disciplines as resource people and vocational teacher educators as participants to share and analyze the results of recent research, experimental programs, and new developments in education; to investigate their implications for vocational teacher education; and to explore the most viable, innovative, and promising approaches in the preparation of vocational teachers.

Realizing the urgency of the situation, The Center for Vocational and Technical Education has planned this first national seminar on vocational-technical teacher education. Although teacher education conferences have been held for special service areas, this seminar is, to our knowledge, the first one designed for teacher educators in all vocational programs.

On March 9 and 10 of this year, a committee composed of national leaders in vocational-technical education met with The Center staff to determine objectives, desired outcomes, and the general procedures to accomplish these for the seminar. Members of the committee are:

James Clouse, chairman, Agricultural Education Section, Purdue University;
Gordon G. McMahon, director, Division of Vocational-Technical Education, State University of New York at Oswego;
M. Ray Karnes, chairman, Department of Vocational and Technical Education; University of Illinois;
John L. Rowe, chairman, Department of Business Education, University of North Dakota;
Anna M. Gorman, head, Graduate Program and Research, Home Economics Teacher Education, University of Kentucky;
Earl Bowler, assistant director of Program Services Branch, Division of Vocational and Technical Education, U. S. Office of Education;
Warren G. Meyer, professor of Distributive Education, University of Minnesota;
James McGoye, consultant, Manpower Development and Training, U. S. Office of Education. We are indebted to this committee in planning this seminar.

We are proud of the nationally recognized consultants that will be participating in the seminar during the week. With these leaders as resource persons and vocational teacher educators as participants, it is the intent of our seminar to:

1. Analyze the results of recent research, experimental programs, and new developments in education and behavioral sciences;
2. Investigate their implications for vocational-technical teacher education; and
3. Explore the most viable, innovative, and promising approaches in the preparation of vocational-technical teachers.

The ultimate objective of the seminar is to initiate a long-range continuing program to improve the preparation of vocational-technical teachers. It is not enough that we analyze, investigate, and explore--while these are important, our goals will not be accomplished unless you participants who are leaders in your own states return and put into practice what we discuss at the seminar.

In this respect you may wish to give special attention to the following:

1. What are the immediate implications for action? What do we now know that can be implemented immediately?
2. What additional research is suggested?
3. What experimental, developmental, or pilot programs are indicated?
4. What additional seminars or conferences might be needed to help implement a continuing program of the improvement of teacher education?
5. What agencies and institutions should be involved in such activities?

Another outcome of this seminar should be an improved and broadened understanding by the participants of teacher education in other vocational services and in the total program of vocational-technical teacher education. This seminar will provide one of the first opportunities for vocational teacher educators to get together in a single purpose conference. It should enable us to know each other better, to share experiences, and to react to each other's problems and philosophies. I hope it will give us a sense of unity and a sense of sharing in a vital mission--the improvement and expansion of vocational-technical education through revitalized teacher education programs.

The success of the seminar will be largely in your hands. What you do here and, more importantly, after you return to your positions of leadership could make a very significant impact, not only on vocational teacher education, but on the entire program of vocational-technical education.

URGENCY OF THE DEMAND FOR VOCATIONAL-TECHNICAL TEACHERS ·

Telelecture from Washington, D. C.

Grant Venn*

Let me begin with comments on what appears to be our present need for vocational programs which are already in operation. We find that our program's growth picture looks like this: Enrollment in vocational and technical education has increased from 4,566,000 in 1964, to 6,270,000 in 1966, or an increase of over 1½ million since the passage of the Vocational Education Act of 1963. The growth rate in 1964-1966 shows an increase of 43 percent at the secondary level, 156 percent at the post-secondary level, and 13 percent at the adult level. I would guess that that ratio of increase is likely to continue at that same rate. Actually I believe this is only the beginning because if we took care of as many young people and adults who desperately need vocational education, it would far exceed the growth figures which apply just to the programs that are now in effect. In the growth projections made by the Vocational Division, by 1970 will be the following situation: That about 35 percent of the secondary enrollment, or nearly 5,000,000 students, will be enrolled in high school vocational education programs. And if the additional 15 to 20 percent that probably will not go to college for baccalaureate degrees are enrolled at the post-secondary level, this gives some indication of that growth picture. In addition to this, we will have several hundred thousand of this 5 million who will be enrolled in classes or programs for persons with special needs. We anticipate by state projections that 650,000 will be enrolled in post-secondary programs, and I believe that is a very low figure. (Growth will be at a rate of 50,000 per year through 1970, at which time enrollment will increase at a rate of 100,000 per year until 1975.

Even with these projected enrollments we haven't looked at the real heart of the need for vocational teachers and vocational teaching personnel, because there might be some difference in the future between what we now know as a vocational teacher and what we actually need in the way of a manpower force involved in teaching occupational skills. In fact, while our present need is one of numbers, probably there is even a greater need for new <u>kinds</u> of people working in the area of vocational education. In fact, one could say the present need is not great; the need <u>is</u> great in terms of a new kind of person in many of these fields.

I have come up with seven factors that I think demand immediate attention as far as the state, universities and colleges most directly involved in the preparation of teachers. The first area, or the first factor, demanding immediate attention is the simple factor of growth. This, if there were no change in our technological society, if there were no change in our culture, this fact alone would demand a great deal more input in the area of teacher training than we are now providing.

The second factor (that I think is even greater than the growth factor) is the wider range of individuals that we must now serve in vocational eduation. This can best be described by a phrase that I have heard used which simply says that in the last two decades, we have had a vocational education system "down on its crutches." That system of teaching people occupational skills is simply the entry of an individual into the work force. Many young people, in fact the majority of our adults in the work force today, simply left school. They had been helped to learn to work, get a job, then learned their vocational skills on the job through a pick-up method. The fact is that this school system has literally closed down. The individual who has not completed high school, or even having completed high school has failed to get some entry job skill, is very unlikely to be admitted into a tight labor market. Even in a labor market, or a market which has high demand for workers, most young people find they

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*Grant Venn is associate commissioner of the Bureau of Adult, Vocational and Library Programs, The U. S. Office of Education, Washington, D. C.

have very little chance even to apply unless they have graduated from high school, have some vocational skills or had some work experience. So this wider range of individuals speaks to those who need rather low level entry job skills. At the other end of the scale are the thousands of adults in our work force today who need constant retraining and up-grading of their work skills in order that they may stay on the job or can move into new areas of work, especially when they find themselves in a work that is now being slowed down or decreased through technological change. We have also, if we wish to add to this wider range of individuals, the large number of women who, due to the freedom that has been made available through technology, are now looking for an opportunity to make a contribution to society and they need the training and education which will give them work skills. That is the second area that I think we have to think about in terms of teacher training, and I think it has some implications for a new kind of teacher training than we have had in the past.

The third factor, which demands immediate attention for increase in quantity and quality of teacher preparation, is the up-dating of present staff that are now working and teaching in schools. Many of us, and I say us because I imagine most of us in the audience would have to agree that it would apply as it does to me, need an up-dating of our present technological skills in areas in which we are working. In technical fields and particularly in the specialized occupational areas, the teacher on the job who simply continues to teach without some retraining and up-grading both in his field of knowledge as well as in his teaching skills, is soon going to be decreasing or increasingly less productive.

Then there is the fourth factor that I think demands immediate attention--new developments in teaching technology and methods. One of the big factors that I think we here in Washington in the Office of Education run into as we deal with your departments and as we deal with Congress in presenting the needs of vocational education in legislation to expand it, is how can we afford to expand vocational education where given costs are higher than they are in certain other education fields. I think there are now developing, and have been developing over the last several years, new technologies for providing certain kinds of instruction which we need to use much more in the vocational fields. And perhaps we have not been as alert to this and as sensitive to the possibilities of these new technologies particularly in the use of computers, the use of program materials and so forth as we might be (and those are just two that I mentioned).

The fifth factor which it seems we need to look at in terms of expanding and improving teacher education are the newer fields to be served. By newer fields, I mean the newer areas of occupations which are demanding skill training and which we have not now generally included in our school program, but which are really becoming a core and a part of many of the other kinds of vocational programs funded by federal legislation. Some of the fields that I would see are as follows. In the para-medical field, we are making a start in technology in the areas of practical nursing, nurses aides, health care for older people. We can also expand in the area of child care where many working mothers provide pre-school programs for the youngsters prior to kindergarten (many families now provide pre-school or the schools do). These programs may need many teachers with less than a baccalaureate degree. There is the whole field of teaching and teacher aides, teacher technicians which I think we are just beginning to move into. We know at the present time we have over 140,000 people working in Title I programs across the country who are not professionals in the sense of being teachers: they are assistants to teachers, and have special training and provide certain kinds of work that needs to be done so that the teachers can be more effective persons. Another field is that of social workers. Now with medi-care, with older people, we have people concerned with the expansion of the social work, worker needs, and technicians in the field of clerical and office work. We also have the whole area, I believe, of recreation in which there are many, many jobs expanding at a rapid rate which;would and could use people with high school educations or a little more than a high school education with certain kinds of technical training. I think another field for which we are going to have to prepare teachers or specialists in this field is the whole area of work studies for our vocational program, for I believe distributive education-cooperative education program is going to have to be expanded a great deal more. So that is the fifth area. These new fields or new areas of work, because as you people well know the work force today is made up of about 60 percent in the service and distribution areas as compared to 40 percent in the production areas and the original trust for vocational education was in production, development of goods and materials, and this pattern of change is increasing very rapidly.

The sixth area that I think we need to look at very carefully is new dimensions of activities which are going to have to become a part of the total vocational education program if the program itself is really going to serve youngsters effectively. Now we know that simply teaching youngsters the facts is not getting them an education, and I think we are beginning to know more and more that simply teaching vocational

skills or job skills is not going to do the job in terms of getting youngsters to select the proper kinds of education, the proper kind of vocational goals in terms of their own abilities and their own aspirations, and so forth.

These new dimensions of activities for which we must begin to prepare a much larger number of people are the following: The first area is this matter of occupational orientation for younger students and their parents. Now we have never spent funds for vocational education strictly on an occupational orientation program for youngsters below the high school level, yet the evidence continues to pile up that young people today have very little opportunity to find out what future occupations are, and occupations are foreign to them. I think we have to begin to develop trained people who know how to organize instruction programs in the school to give occupational information and orientation to young people--starting at the elementary level, particularly in the junior high school level and through high school--because unless we do this I think many youngsters and their parents are going to continue to feel that vocational education is a second choice if they can't make their first choice which would be an academic direction. We do not have any people prepared in this area and, as far as I know, do not have programs specifically planned in this area.

A second kind of purpose we are going to need in these new kinds of activities in vocational education is the specialist in the work study, cooperative education or whatever term might be used. I think we will find many more students both in the high school level and the post-secondary level who will spend part of their time in school, part of their time in academic classes, part of their time in specific vocational skills areas, and part of their time on a job getting certain kinds of work experience for which I hope they will receive academic credit in their high school and the post secondary, too. We have done this for years in the medical field, the law field, and I think we have to now spread this to many other occupational areas because the need for vocational education is so great, the work force group is composed now so that we cannot, in my judgment, possibly replicate actual working conditions in our institutions. We are going to have to have an outreach from the school connected with the employer to businesses and industry in the communities where it becomes a short venture. I had the privilege a few weeks ago of spending three days in New York with the National Industrial Conference Board, and some of the top business and industry people in the country and I believe that they are more than anxious to get involved in helping us actually train these young people so that they have job skills. I believe it is going to take a specially trained kind of person who understands industry and its problems, who understands the local community, who understands the school, the vocational program, and can tie these packages together. Particularly, I think he is going to have to be trained by our vocational education people. I don't think this is something he can just pick up off the street, but the teacher who is really concentrating on the classes and other activities of vocational education, can't really tie in the kind of work experience program we will need in the future, unless, on a part-time basis.

Thirdly, we are going to need to train some teachers who have skills in providing what might be called a short, intensive entry-skills program, which in one semester you give this boy or girl the kind of entry skills in the clerical field, business field, mechanical or whatever it might be that will allow him to begin to work at the end of that one short semester intensive course. I am thinking of the example of the boy or girl who spends his whole time in a general program (and as far as I am concerned I think we would do away with general education program; I don't believe it fits anybody. Either they should be in a college preparatory program going all out in that direction or in a vocational program--all students). In any case, I think until that happens we are going to have to develop people who have the specialty in developing short intensive courses for a boy or girl who is not going to go on to college but has to get a skill in order to get a job, or the boy or girl who has graduated and now finds that he can't get a job because he lacks skills. I don't think we will be able to bring them all the way back and start over.

The fourth kind of person I think we are going to need to train in our colleges and universities or in combination with the schools is the person who is a specialist in helping the youngster make the transition from school to work, the area of placement and follow up. I have become more and more convinced that unless one of the purposes of the school is clearly understood to be the responsibility of helping every boy and girl who does not go on for additional school to get his first job, unless the school has that responsibility clearly defined and understood, we aren't likely to get the needed kind of changes in our school program. We are going to have to get in the position of answering at the end of the school year, if a boy or girl is not going to college, in the same manner we now talk about enough percentage going to college or enough for a merit scholar who has been able to get in a particular school.

As you know, we had a bill before Congress on which hearings have been held before the Judicial Committee, which does provide special funds for the kind of program in all

fifty states in the four areas that I mentioned. One of the questions that is being asked is: Where are you going to get the people to run these programs? As for these new dimensions of activities in which we are not now involved, I get the feeling we have to jump in the water and start to swim and develop some ways of training these people. I hope that this seminar will address itself to some of these newer dimensions.

The last broad area I think we have to train vocational teachers for is in the whole area of teaching the disadvantaged. The number of dollars that the federal government has made available for occupational education and vocational programs for the disadvantaged exceeds the total vocational education funds by a million. And the question that seems to continually be asked is: What is the role of the school in the handling and the teaching and preparation of young people who are now really locked out of our society: the big city, the ghetto, the rural poor. Frankly we (by we, I refer to the whole educational community) have not been able to get at this problem. First because no one wanted it in my judgment; and second, because we never had the money. But I believe that in the long run we will have to take these youngsters on rather than have them become dropouts of our school system. If we don't we are going to have a segregated situation in our communities and in our country that will make our racial segregation look like small potatoes. If we come to the point where certain kids can't go on to school and they go to a separate kind of school system from the others, it is my judgment and my firm belief that the vocational educator is better prepared and better able to tackle this job than are any of the others located in our schools in this country. Yet, we have not so far as I know, really developed programs to give people interested in this particular group of youth in a high school or post-secondary school, the kind of skills and understanding that it is going to take to face up to this job and do it in a good way. I think that funds are going to be made available, because I think we have to solve this problem.

In closing, let me just say that I believe that until we do get more direct funds and get additional funds, that the state, state department of education and the colleges and universities are simply going to have to take a part in this and set aside additional funds from the vocational lockers of that state for the development expansion, and improvement of the teacher education programs, and particularly for the development of some new kind of specialist to work with the vocational teacher to expand his knowledge of the field far beyond what he is able to provide directly as a teacher in a classroom situation.

I am so sorry that I could not be with you tonight, but I hope that these few remarks will be helpful and will give some assistance in making this a very worthwhile seminar as to the beliefs that we need to find in this whole problem of teacher education in vocational and technical education.

AREAS OF CRITICAL IMPORTANCE IN VOCATIONAL-TECHNICAL TEACHER EDUCATION

Melvin L. Barlow*

When you are the third speaker on a program, it doesn't leave you much to say, but it does give you the opportunity to up date all the out-of-date statistics that the two previous speakers have used.

First, I was just thinking a minute ago that since history has always been very, very close to my heart, particularly history relating to vocational education, that this in itself is a very historic occasion. I can point to some early routes that probably might have been somewhat similar to this, but at no time ever before has this particular thing happened. I was thinking a few minutes ago at the table that out in this audience there are thousands and thousands of years of experience in vocational teacher education and that most certainly we have the brains of the whole country here before us.

Despite any other figures that you have had before you, there were in 1966, 6,070,059 people enrolled in vocational education, at least, that is the figure that is being published. For the three years prior to 1966, the increase in vocational education ran about 4% per year. The three years past 1963, past the Vocational Education Act, the increase has been about 14% per year. It is my estimate based upon the returns from 40 states and 2 territories that our gain so far in 1967 is 16% over 1966. We have not heard from 10 states and Puerto Rico and Guam yet, but if they maintain their same enrollment, our total enrollment for 1967 ought to be 7,161,059. That is a gain of 18%. If they happen to report more than their same enrollment last year, our gain will be considerably more than 18%. I doubt that it would exceed 20% because I don't think there is enough power, enough possibility in the states that are left to bring this up. But this is a tremendous gain.

Do you realize that in the past year, we have gone up over one million students enrolled. When Dr. Taylor told you a few minutes ago that we will reach 14 million in 1975, I am willing to bet that we will reach it in 1972, if we keep this up.

This is fun to play around with the statistics because this is what part of our problem is: that we have to know something about the size of the group we are teaching and what is happening to that particular group, and it is growing--growing rapidly, and it is very likely to exceed projections. I think we are almost going to have to arrange or revise projections frequently.

I want to spend a few minutes to talk about 5 different points: how large the task is that is facing us in teacher education; the numbers distribution of teacher educators; the scope of the responsibility of teacher education; leadership roles; and the fifth item, preparation of teacher educators; then perhaps a very small summary. I'd like to spend all my time talking about how fabulous and what a tremendously sound vocational education program we have from our founding fathers which they built with very creative ideas, imaginative ideas, and of course, as you know, integrated within this program was this whole concept of teacher education. This did in fact ring out loud and clear in the Vocational Education Act of 1917. It is a very interesting thing, that while they insisted we have teacher education, they did leave it up to the states to develop their own program, so now we have 50 different kinds. This has been part of our problem, but it has also been part of a great success that we have. There have been great changes occurring in the long historical period. However, there is one thing it has not changed one bit in the 50 years. This is the concentration or the dedication and original enthusiasm that vocational education has had for teacher education. That,

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I think, has not changed. We have treated that honestly and fairly in a good many respects and we still believe it. Otherwise there wouldn't be 300 people here at this conference.

Let's talk just a moment about the items. Item number one: How large is this task in teacher education? I think some figures were given to you about the numbers of teachers. We really haven't known how many teachers we have until just recently, because it is pretty hard to tabulate them. They teach in the morning, then they teach in the afternoon, then they teach a couple of nights a week, and we really haven't been able to sort out all these numbers as to whether we are counting one person or four. But in 1966--it is kind of a target year--the people in Washington believe that there were 124,042 teachers. There have been some projections on this basis up until 1970 and 1975. But how is this going to change, how large is the problem? If we think in terms of anything less than 15% per year, we are in trouble. I get a bit uncomfortable when I think of more than 25% increase per year in teachers. This gives us a little range to hit for, although it may take a little more time for us to find out with some realism exactly what these figures would be. But certainly, you see our group in 1965 and 1966 increased by 16%, so I can't believe this is going to be any less.

In terms of teacher education, we used to think a great deal about the pre-service, in-service types and we had distinguished between these two groups. Actually what we will probably have is not just so many enrolled in teacher education, which is a fraction of the total number of teachers, but the maximum limit is going to be the total number of teachers, if we really get down to the in-service training job confronting us. In other words, if you have 2,000 vocational teachers in your particular state you are going to have to have 2,000 in training, at least. This is all those who are just beginning and all those who might be wearing out that we don't want to lose. Of course, this scares you a little bit; I can see Dave Allen sitting back there, shaking from here. He had 600, 700, or 800 people in his program last year and what would he do if he had twice that number? I don't know, but it is likely to come. Well, let's look at the number of teacher educators. It is interesting that despite the depth and concern we have had for teacher education over all these years, there is practically no evidence that we have had similar concern for the people who teach teachers. The federal acts and the rules or regulations simply ignore the whole problem, and this is going to have to get into the context of your conference here very definitely. I think that in 1966 we had 2,145 teacher educators teaching in 260 institutions and 56 state departments of education, (Every time I say something like this, someone will say, that can't be right, I know of 300 people you haven't counted.) Well, this is the best figure that I can give you at the moment. These are the ones that have some designation as to some responsibility for teacher education as far as the Office of Education records are concerned. Now, I tried a number of little diagrams for this report we are writing about the number of teacher educators in the United States. In some kind of relationship I am taking both full-time and part-time teacher educators and the total number of vocational teachers. Happily enough California comes out on top. This, of course, means that it is the worse case, I am sorry to say, because in California we assign to each teacher educator 306 teachers for whom he is responsible. The national average is 58, and some states have only 27. There is a tremendous difference among the states on the work load that we put on teacher educators. I can't give you any real sound values on what happens in your particular state, I don't even know what these numbers mean actually, except that they do mean that we are far from having any kind of a uniform understanding of what a teacher educator does as far as the various states are concerned. Let me let it ride at that point.

The variations from 27 vocational teachers per teacher educator to 306 is quite a bit. If we look about the distribution, of teacher educators among the various fields, I think you will find some interesting things. For example, agriculture has about 15% of the enrollment, they have 11% of the teacher educators. Home economics has 33% of the teacher educators; 31% of the program. Trade and industrial has 24% of the teacher educators and 21% of the program. We are kind of balanced this way in terms of our relationship among the services. But what we have these people do, of course, is the place where we vary greatly across the country. This is going to have to have some discussion during this meeting this week I am sure. Well, what about this third item, the scope of teacher education responsibility. By and large we have placed our focus upon preparing the untrained prospective teacher, this has been pretty largely the area in which most of our chips have been placed in our betting. Now this is where the change is coming in. I think the change is coming in the fact that in addition to the prospective teacher we have all the other teachers to deal with and, of course, this is going to take considerable amounts of effort in order for us to reach that goal. The in-service part, this tremendously large part of in-service teacher education, I like to think of as having three parts. Maybe it ought to have five or only two, I don't know, but most certainly there is a problem of up dating the skill knowledge, the technical understanding that the teacher has in his own occupational area or the

areas that he is responsible for. This is certainly one facet of it in the in-service program. The second facet has to do with the teaching of and up dating just in the professional areas. We are learning lots in research about how people learn, research in teacher education, research in teaching, and somehow or other we have to have a part of our in-service program devoted to that. The other part is the part that would come. The third part would seem to come under the heading of institutes, conferences, seminars, and things of this nature so we can get together and share ideas. It is awfully hard to prove the real value of these except everyone likes them and everyone feels that they get something out of them. And most certainly it seems to me that we are going to have to have these clinics, conferences, and other kinds of meetings in order for us to have an opportunity to share with the other groups of teachers these common experiences. I doubt very much that this renaissance we are talking about in teacher education involves scrapping everything that has been done. This doesn't quite seem to ring true in my book.

I do think, though, that the obligation is pretty much one of building on these proven values and of course, expanding the scope of responsibility, then providing, I guess we can say, maximum flexibility in teacher education. I hear that some states may have one standard prescription and everybody falls in the same trap for the same bucket. Like it or not, that is the way it happens. Well you can hardly justify that point of view in that particular area.

Let me get down to my point number four. This has to do with leadership, and it is leadership in teacher education. It seems to me that there is no question that we have to have a leadership that originates in what we might call a national level or a national sphere. I can see these possibilities. Certainly the Office of Education is one of the areas that would contribute to leadership in teacher education. I see the American Vocational Association as one of them, and of course the conference that is being conducted here. There is leadership from the Center in Ohio that is bringing everyone together in order for us to have the opportunity to look a little bit further in our teacher education program. Maybe there are other national areas that I have missed in this case, but certainly the leadership role has a national strain to it. Perhaps, too, there is a regional that would go along with it. But there is something that has to happen in each of the states and this is the part that I think is real tricky. We can say very blindly that the sate director should take full responsibility to see that teacher education is provided for all of the teachers, and expand the program and so forth, but this works just fine in some places, but it doesn't work too well other places.

The total enrollment in vocational education in Wyoming is less than the day school enrollment in Los Angeles Trade Technical College in Los Angeles. The situation we get into in a particular region where you have very few people scattered over a large area is that you cannot use the same kind of a pattern here, the same leadership role. This may mean that we ought to devise some very keen ways of using adjacent states so that we have not just one state trying to satisfy its own needs but several states pooling their resources. Quite a bit of information has come to us on the council about this particular area: people who are concerned about it and the leadership that has to come. It may have to come from a national area in order to help the states plan in this particular area. I can say that there has to be more money in the Office of Education, more people. This is just part of the problem that we have not had enough opportunities to look carefully or to give all of the attention that we should give at the national level in the Office of Education.

Now I will get at point five: this preparation of teacher educators. I don't know whether there is any one way that they have been prepared or not. Some people might argue that they haven't been at all, I don't know. But certainly there are several items which ought to be a part of their preparation. I can hardly visualize a teacher educator in the future who isn't pretty well understanding in the area of research. I don't know what this means, and maybe it means more than a course in research methods. We are so rapidly becoming attuned to research as a way of life that teacher educators are certainly going to have to have some of these experiences. In other words, they ought not be completely ignorant in this area. The number two item I see in this part of the program for teacher educators would certainly fall in the whole area of curriculum theory and I don't know just what Larry Haskew is going to talk about tomorrow, but you ought to listen twice because there are some good ideas in here to throw into this pot about the kind of training that teacher educators ought to have in curriculum theory. We have talked about evaluation so much that certainly the teacher educator ought not be completely ignorant about evaluation.

This council that I have some responsibility working with talks about being a council that is evaluating vocational education. Well, in the first place the word evaluation doesn't appear anyplace in the law, but it is a good thing it doesn't appear because we haven't any measuring sticks to put any kind of absolute values on it.

To get to our teacher educator of the future, he is going to have to have a pretty good understanding in the whole area of evaluation techniques, whatever they happen to be. I couldn't get by with this thinking without putting a fourth item down here, and I use one word, philosophy. I don't like to use it because it means a great deal more than that, but teacher educators simply must have a depth of study in philosophy of American education, vocational education. It is a very definite part, and I think in some cases, a very definite lack if we would try to make an evaluation of our own strengths and weaknesses.

I'd like to summarize these items for a moment for you. There is no question that teacher education is the essential element in the expansion of vocational education. The complexities that you are going to talk about, that you already know about, simply place a picture before us that will take a great deal of sophistication in all facets of education for us to solve and the key person is the teacher. We can think of the program of teacher education and the competent teacher. I'd like to think of it from a standpoint that has three parts. Certainly in teacher preparation education generally we are talking about formal educational preparation that the person has. And again we are talking about the subject matter competency and we are talking about the command of the practical interpretation of the theory, learning theory and teaching theory. And we have to keep moving on all of these fronts all of the time. When someone asks me, "How long does it take to learn to become a good teacher?" I have to say that I don't know, I have only been in it 26 years. The point here is that this is not something that we give the fellow in 400 hours or four years or whatnot, it has to become a part of, now certainly more than ever before, his total experience.

One problem that occurs here in connection with our thinking of teacher education and change is that we know very little about the characteristics of teachers in this country. When I tried to introduce a section into our report I had to come up with only two studies that had been made within the past five years and these were from the same area of education. We simply don't know very much about the teachers of vocational education. I sometimes like to think, "What is this going to mean for the future; what kinds of adjustments are going to take place; what are the major elements that have the significant bearing upon the adjustments?" Most certainly one of the things that you are going to talk about are sources of vocational teachers. This is going to have to expand, it is going to have to change, we are going to have to find other sources in addition to expanding other programs, or other existing sources that you have. No matter how good any pattern that we have in any area of vocational teacher education is, I think this simply has to suffer some change. We have to live a little bit dangerously when we think about it. This is: sources of teachers. Another point is flexibility in state certification. This has had negative reaction from people in the field that we have consulted with. They want to make some changes, they want to live dangerously, they want to react to the new environment, but the state certification requirements won't let them. I think maybe this must have a good careful look. Remember way back there in the early days when Prosser and some of the others were trying to develop this program of vocational education. They thought very carefully about this certification process, and insisted that each state have a policy about it. Every state did, and some of them still have it.

The fourth item gets right down personal again. This is the selection and upgrading of teacher educators. The one thing that forever gets lost in the discussions, is the plight of the person that has to carry on the burden of teacher education. They are always in short supply and they are very key to the whole process. Somone earlier this evening made reference to a history that has been published. Somewhere in that book I think it tells the story about the early directors, when they were thinking about teacher education. This is probably prior to 1912 that this occurred, probably 1910 to 1912 anyway. They were thinking about the necessity of teacher education, and it suddenly dawned on them, "Who is going to do the teaching of the teachers?" They went into a long discussion about what the characteristics of the paragon of virtue is going to be. It was very interesting that they set very, very, very high standards. One thing that they suggested or recommended was that the teacher get around and visit other places, see other schools in operation, see other teachers in operation. This is one reason that we need a conference like this.

At that particular period of time going to Germany was the rage. They said, "please don't go to Germany, stay at home because we want to find out what is going on right here." They had the gall to suggest that the person do this on his own time and on his own pay, to get out and up grade himself, and this ought to be kind of a continuous process. There is something about that that is really exciting.

I am going to close my remarks by reading just a few items from the editor's note of Life magazine January 13, 1967. This is entitled, "A Warm Tribute to the Teacher." The editor points out that two of the photographers in that particular issue of Life and in recent issues were graduates of the vocational photography class, a 1600 hour

class, in Freemont High School in Los Angeles, a class taught by a man by the name of Fox, Clarence Fox. He is retired some years now. But the editor goes on to tell about the quality that these people have and what they have exhibited in their work as photographers for Life magazine. They tell their own story in part of how they play tricks upon Fox by putting flash bulbs in the lamp. When he turned on the lamp the flash bulb would go off and things like this, but he always got revenge and demanded pretty high standards.

I would like to read just the last paragraph. "We really love photography with a passion. And though we had strange ways of showing it, we loved and respected C. A. Fox. There was a feeling that every day would bring something new and exciting and Fox was leading us to greater and greater things in and through photography. He was fiercely proud of his graduates and insisted that we keep the grapevine going. He meant that we were to help each other. We did, and we still do." This had a little meaning for me in that I think teacher educators have the whole quality, the whole destiny of vocational education in the palm of their hand. I am kind of glad to be a member of such an illustrous group as I see here, and thank you, Dr. Taylor, for inviting me.

THE ECONOMICS OF LEARNING TO WORK

With Particular Attention to the Changing Role of the Teacher

Harold F. Clark*

It is a great pleasure to have the opportunity to talk to you. All of you know more about teaching vocational education than I do, but I may be able to put part of the problem in a somewhat different setting. This may help you to see some additional opportunities and challenge in your work.

The modern industrial world requires that almost all workers be trained for the work they are going to do.

There are at least three parts of the training. There is the general education required, the training in the specific skills, and training in the attitude toward work.

Training must be provided before the first job, it must be continued on the first job, and it must be almost continuous through the working life. Before I turn to the specific job of the teacher, I want to say something about the economic and social background of training for work in the modern world.

"Probably most of what man has learned through the ages he has learned from work." (Ohio State Bulletin.) In the past men learned to work from working. He learned it from his parents, grandparents and others in the community.

There was a time when most jobs could be learned on the job. This was true of the farmer, the office worker, the mechanic, and even the doctor. At the time of our great-grandparents, most doctors had not gone to medical school. They had learned to be doctors by going around with a doctor. Now a doctor must go to a medical school.

The speed of the growth of knowledge has upset these historic ways of learning to work. They should still be used, but must be supplemented by other methods. One or two facts will illustrate the rate of growth of knowledge.

In 1890 probably not more than 10 million dollars were spent in the United States by all agencies on research. This includes the universities, government, business, private agencies, and all others. By 1900 the figures were about 100 million, by 1940 about 1 billion and now about twenty-six billion.

It is probably not unreasonable to think that more money has been spent on research and development in the last 10 years than in all previous time.

Some authorities think that in physics, chemistry, parts of medicine, and biology, knowledge may be doubling in 8 or 10 years. It may even be true in certain parts of agriculture, knowledge of computers, and some engineering fields. The effects of this rapid expansion of knowledge upon teaching how to work is very great.

One of the very obvious effects is the speeding up of the rate of change in many occupations.

The farmer who does not keep up to date is likely to get into trouble. The same is true of the doctor, nurse, mechanic, and a thousand other occupations. This means that we are not only faced with the original training of the worker, but with keeping the training up to date. It may be that the most important single thing to teach any

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worker is that he must go on with his training all his life. We have built schools to teach almost any job skills you can mention. These schools must have teachers.

I should like to describe some of the training facilities that you may not know too well. A few years ago I knew very little about them.

I want to describe four school systems other than the regular elementary, high school, college, university system. The first of these is the training system run by business and industry.

CLASSROOM IN THE FACTORIES

American business and industry is carrying on a massive program of training and education extending all the way from the beginning factory worker to the continuing education of top management.

Let me trace briefly, and not too accurately, the development of training in industry. As you know, during the 19th century, most training for work was done on the job by the owner, manager, or some other workman. Around the end of the century, some very large business organizations were being formed in steel, tobacco, oil, sugar, and others.

The companies were too big for the old methods of training to work. Foremen and supervisors needed some instructions on how to carry out their functions. Classes for foremen and supervisors were set up. By and large, they proved successful, and it is reasonable to say that by the beginning of the first world war, a good many large American industries were convinced of the value of training supervisors and foremen.

Many additional worker had to be trained during World War I. By the end of the war many companies saw the advantage of training both the worker and foremen.

During the 1920's and 1930's training expanded to lower and middle management. During the 1940's and 1950's it expanded into upper management.

During the whole period, training was expanding not only from the bottom to the top, but was expanding in another direction.

At first the training was closely job related. It soon expanded to closely related fields, then into science and mathematics. There it expanded into the social sciences. As one example it expanded into economics. Today American industry employs more economists than the colleges and universities employ, and they pay them more money.

Finally the training programs moved into astronomy, history, the humanities, fine arts and many other strange fields. There are elementary courses, middle level courses and extremely advanced courses, including some post Ph. D. courses.

Thousands of courses are offered and hundreds of thousands of workers are continuing their training at all times.

In the book that Mr. Sloan and I wrote about Classroom in the Factory, there is a long list of courses taught in four companies for the workers.

PARTIAL LIST OF COURSES OFFERED BY FOUR COMPANIES

AVOCATIONAL SUBJECTS

Ceramics
Charcoal Sketching
Current Events

BUSINESS MACHINES

Accounting Machine Applications
Accounting Machine Practice
Analog Computer Techniques
Application of Digital Computers to Engineering and Industry

COMMUNICATION

Communication in Business and Industry
Communications
Employees Communication Practice

ECONOMICS

Economics for Everybody
Industrial Economics
Investment Principles

ELEMENTARY-SCHOOL SUBJECTS

Arithmetic
Reading
Writing

ENGINEERING--AERONAUTICAL

Advanced Aircraft Performance
Advanced Gas Dynamics
Advanced Propulsion
Advanced Stability and Control
Aerodynamic Flight Testing
Aerodynamics
Aircraft Flutter and Transient Loads
Analytical Methods for New Design

ENGINEERING--ELECTRICAL

Laplace Transform Methods for Electronic Engineers
Magnetic Core Circuits
Oscilloscope Applications

ENGINEERING--MECHANICAL

Plastics Engineering
Principles of Machine Shop Practice
Principles of Mechanical Design
Production Illustration

HIGH-SCHOOL SUBJECTS

Basic Mathematics
Biology
English

HUMAN RELATIONS AND PSYCHOLOGY

Basic Psychology for Supervisors
Business Psychology
Creative Thinking

MANAGERIAL AND SUPERVISORY

Controls
  Control of Labor Costs
  Cost Accounting
  Cost Estimating
  Cost Improvement

MANUFACTURING AND PRODUCTION

Sheet Metal Planning
Shop Applications of Mathematics
Slide Rule Practice
Statistical Quality Control
Stores Operation

RESEARCH

Research Problems
Research Symposium

SALES SUBJECTS

Marine Sales
Marketing Analysis

MILITARY

Out of the 900 largest fields in the skilled trade and technical areas, the military trains for more than 800.

In some highly important civilian fields persons trained in the military provide most of the highly skilled personnel. In aviation probably 80 to 90 percent of all highly technical personnel is trained in the military. Some estimates in the field of electronics have been as high as 50 percent.

On motor maintenance some of the training is probably as good as any in the country.

Training is provided at all levels of jobs from the lowest to the highest. The army management school has a high fraction of generals as students. It has become customary to have a school between each promotion. In other words, the training is continuous through the entire working life.

35,000 SPECIALTY SCHOOLS

In any very large city in the United States there will be hundreds of these specialty schools. They train for a very wide range of occupations.

On any one day there will probably be a 1,000,000 people studying in the clerical fields alone. Beauty schools, barber schools are well known. There are schools for baseball umpires, for moving packers, for long distance truck drivers, for crane operators, and many hundreds of others.

Some of these schools are superbly managed and place close to 100 percent of their graduates in good jobs.

What do these schools teach us? They stay very close to the demands of the field--they have to. They will also try anything if it will speed up training.

CLASSROOMS ON MAIN STREET

TYPICAL COURSES OFFERED BY 1-YEAR AND 2-YEAR BUSINESS SCHOOLS, JUNIOR COLLEGES OF BUSINESS, AND SPECIALIZED SCHOOLS

Accounting
Advertising
Air-freight transportation
Airline operations
American government
American literature and the novel
Art appreciation
Art for contemporary living
Auditing

TYPICAL COURSES OFFERED BY SCHOOLS TRAINING IN SELECTED INDUSTRIES

Basic and advanced interior design
Bleaching, bluing, and soaps
Blueprint reading
Bonds and mortgages
Building finance

TYPICAL COURSES OFFERED BY SPECIALTY SCHOOLS PREPARING FOR SKILLED TRADES

Carpentry
Circuit analysis
Cleaning watches
Comprehensive plumbing
Cooling units, types of
Cotton classing and buying
Crawler-tractor operation

Custom furniture upholstering
Cutting and welding, above and below water

TYPICAL COURSES OFFERED BY SPECIALTY SCHOOLS PREPARING FOR SEMI-PROFESSIONAL OCCUPATIONS

Fashion display
Fashion history
Fashion photography
Fashion reporting
Fashion in radio and television
Fashion survey
Fiction illustration
Flight computer
Flight navigation
Floral merchandising
Floriculture
Funeral arrangements and direction
Furniture arrangement

TYPICAL COURSES OFFERED BY SPECIALTY SCHOOLS PREPARING FOR PERSONAL AND PROTECTIVE-SERVICE OCCUPATIONS

Haircutting (men, women, children)
Hair dyeing, bleaching, and tinting
Hairstyling
Handling of bar utensils and glassware
Hematology
Hygiene for barbers

TYPICAL COURSES OFFERED BY SPECIALTY SCHOOLS TEACHING RECREATIONAL ACTIVITIES

Management of personal time
Memory training
Metalwork and jewelry
Motorboat engine maintenance
Music (accordion, banjo, clarinet, drums, guitar, mandolin, organ, organ, piano, saxophone, trumpet)
Sailing
Sculpture, ceramics
Sewing for adults
Silk screening
Snow skiing
Swimming

What has been learned from these studies for the teacher? You know a lot more about the problems of the teachers than I do. However, let me make a few suggestions.

1. Industry and the military seemingly will try about anything if it will improve the efficiency of teaching.
2. The vocational teacher may well be the most open-minded teacher in the regular school system, but I do not think he is as willing to try new things as his counter-part in industry or the military.
3. I wonder if the resources of the community, outside of the school are being used to the optimum by the vocational teacher.
4. There is far greater use in industry and the military of models, charts, scrambled books, programmed material, computer assisted learning and many other devices than in the regular school.

   As one illustration, DuPont found in teaching certain skills that programmed material produced 13 percent higher skill on the job and did the training in 25 percent less time.

   This was found out after teaching large numbers of workers by conventional methods and other groups by programmed material. DuPont spent $2,000,000 on the effort to determine which was the more efficient way to teach the skills. Someone will say give me $2,000,000 and I will try new things, but I don't think that is the answer. Any teacher who wants to can try something new and different.
5. Rapid technical changes mean that the worker has to go on learning new skills and new ways of doing the old ones. This means that the vocational teacher is not only trying to teach the worker new skills, but is also trying to get him to the point that he can teach himself.

In the kindergarten, the teacher reads to the children. As soon as possible, the school trys to get the child to the point that he can read for himself and learn by himself. All too often, from then on, any real effort stops, in trying to get the student to do more and more for himself. The textbook is part of the cause, for it is almost impossible for the average student to learn from the text without the teacher doing a lot of explaining.

This is one of the great advantages of a programmed book. If the material is well done, there should be no gaps. All explanations should be included in the book, and the steps should be so small that the student can take them by himself. This is the reason that every vocational student should use some programmed material so that the student will get used to it. The student should have enough practice in learning by himself that he can and will go on doing it all his working life.

1 What do the studies mean for vocational education?

1. They mean that vocational education has become one of the most important activities of the American people and that it is going to become a whole lot more important.
2. They mean that unless you have adequate vocational education for a job, you are not likely to get a job, or to hold one if you get one.
3. They mean that adequate vocational education is necessary at all levels of the work force from the lowest to the highest.
4. They mean that vocational education must continue throughout the working life.
5. They mean that the tasks of vocational education have become so great that we can't get them done as well as we would like them done. This is true regardless of the number of organizations trying to help do part of the job.
6. Some group must try to look at the whole job to see that everybody is trained. Somebody must look at all the work that needs to be done, and at all the workers. Somebody must see that all the workers have the skills to do all work at a continually higher level of skill. This is the surest way to get a rapidly rising standard of living for any society. Your group may well be the group to see that this task is done. This may well be the most important thing we have learned from our studies of the variety of training programs in the U. S.
7. The key to the poverty program in the U. S. probably lies more in vocational education broadly conceived than in any other thing.
8. Vocational education has become so important that massive programs are carried on by business and industry, by the military and by 35,000 specialty schools.

The more knowledge that is discovered the more there is to be discovered. The more general education that is provided the more that is needed. The more vocational education that is provided the more that is needed. This is the meaning of our studies.

THE ROLE AND STATUS OF VOCATIONAL-TECHNICAL EDUCATION
EXCERPTS FROM SPEECH

Alice Widener*

Once upon a time, about 120 years ago, there was a man with a vision--that education belonged to all of the people, not the rich, not the influential, not just to men, but to everyone in the United States. He changed the face of America; his name was Jonathan B. Turner. Had it not been for his vision, higher education in America would not necessarily belong to the people; it would belong to a very small percentage of men, almost no women. Turner gave this same speech over and over for a period of ten years: he was responsible for the Morrill Land Grant Act.

In 1862 Abraham Lincoln signed the Land Grant Colleges Act and he emancipated America. If it had not been for the Land Grant Colleges we would not have the fine agricultural system we have today, and we would not be a "land of abundance." These were the so called "poor boy colleges" and isn't it funny that M.I.T. was one of them?

Today, we are in need of one great speech: we must have one great speech, because today the United States is in the exact same predicament that it was in in 1862. At that time higher education was out of kilter with the nation's needs and today, the secondary schools of the United States of America, in my judgment, are out of kilter with the nation's needs, with the progress of the nation, and with the social situation of the nation.

In this present situation in which we find ourselves, the United States is not unique. Every advanced nation on the face of the globe is now faced with precisely the same problem as our country faces. The overall picture is just the same. The same cult of intellectual snobbery, the same narrow minded short sighted people are throttling the educational system that were throttling the educational system 105 years ago.

It is not the function of the historian to be the prosecutor of the past. Those in this country who are fomenting unrest are doing this, they are prosecuting the past. The United States is not alone in this. The situation is similar in many of the developing nations--the migration of agricultural workers and the subsequent language problems. The farmers of France and the Bretons and they cannot speak French, the Sicilians of Italy cannot speak Italian, and the Negroes of the south cannot speak the industrial language of the north in the United States. The problem is a common one shared by all nations--and the language barrier is a serious handicap.

There is an educational conflict in this country totally out of focus with reality. As many of you know, if John or Mary don't want to go to college they are considered ready for the junk heap. Thousands of ads in newspapers and magazines, being paid for by Insurance Companies, state "Insure your child's future with a college education." How do you know that this infant in the cradle is going to want to go on to college? Is there no future in America for this child if he or she doesn't want to go on to college? Of course, we want the most educated talented people we can possibly have in this country--we want doctors, lawyers, teachers, etc.--we must have them, but we have to knock down this cult, this myth that every child is a potential lawyer, doctor, teacher: college material. This is unfair; this is unrealistic. Of course, every child regardless of race, color, creed or financial background should have the opportunity to go on to college if that is what he or she wants, but what has this got to do with the present situation?

Today, the public school system is geared throughout this great nation to academic, not vocational education. When, of the 30 percent who do go on to college only about one-half make it, does this make sense? Of course, you ladies and gentlemen know that it doesn't make sense at all, and you know that it is largely responsible for the drop-outs and the juvenile delinquents, etc.

I would like to bring out the fact that you ladies and gentlemen are being unnecessarily cut off because of intellectual snobbery.

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How many of you have been told about the great school in Belgium based on Tourism? CERTA: this is the most prized school in the world. And, if you think we have problems let me tell you just a little bit about the problems that affected this school.

In 1945 little Belgium was liberated from four years of enslavement, and left with 150,000 children whose families had simply disappeared--they did not know whether their mothers and fathers were alive or dead. When you asked their names they said "John" or "Mary"--John or Mary who?--they did not know: just John or Mary. In addition, there was another 150,000 orphans, with names, but no fathers or mothers living because of the war.

A great philanthropist wanted to do something for Belgium--possibly a war memorial--but in talking with the Belgians and learning of the plight of these children gave his consent to establishment of a training school. And ladies and gentlemen there is no finer school anywhere in the world today; it is based on vocational training and they have a waiting list of between five and six thousand--and it may become the greatest snob school in the world for the richest and most influential people in the country want their children enrolled there. There has never been an American student because they cannot even handle their European applicants.

We, in this country are concerned with the "balance of payments" and the outward flow of gold. Yet, we do nothing about Tourism--and do you realize that in France Tourism is a multi-million dollar industry. Tourism in France, Spain and Greece is big business, and they are trained for it. They are trained in school and in-service on the job. In this country to serve others, wait on others, is considered menial. In the name of God, what is menial about serving others?

The great CERTA school in Belgium was originally based on Tourism!

Why aren't boys and girls of 18, 19 and 20 equipped, in this country, to hold jobs paying good wages? Let me say right now, that the JOB CORPS is nothing but a correction institute for a set-up that shouldn't even exist.

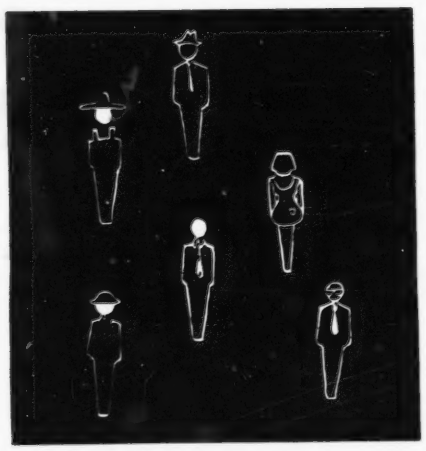
I recently saw an advertisement in the Help Wanted column that stated "more and more women are going back to work--even in menial jobs." They wanted to hire a nurses aide. I wanted to cut out the ad and send it back to the advertiser and ask him if he was out of his skull? What is menial about an aide giving a patient a bed pan or a glass of water? What is menial about scrubbing a floor? My present lawyer, a Negro, scrubbed floors in a hospital for six years to pay for his education. We have to wipe that word out (menial) along with the snobbery that goes with it.

One of the biggest problems we have (the group most opposed to vocational-technical education) is big labor. Some of the big labor leaders have said: "Vocational-technical education makes a class-structured society." They are thinking perhaps of the type of vocational-technical education that existed say 75-80 years ago.

I had an opportunity to visit Camp Kilmer and Mahoning Valley Institutes. In talking to the boys they said: "I need me some pocket money to help out my family." "Man, I got done out in the second grade. I put down the wrong answer and the teacher marked it correct--I knew she was cheating me, and I hated the teacher and I hated the school." I understand the drop-outs, the misfits, I understand their feelings because if they don't go on to college they have no place.

Talk about equality--taking most of the boys and girls and getting them through high school, then telling them they are out is not educational equality. If you get into higher education and you can't make it, you're out.

I have some suggestions for you dear people. You need one great speech; you need another Jonathan Turner; you need to do for elementary-secondary education what the Morrill Act did for higher education; you need courage (If you can't stand the heat get out of the kitchen). You will need all of the courage you can possibly muster. You need to eliminate the "vocational-technical" and use something they understand. You need something meaningful to these people--like "Pay Check Education." And you need publicity: you need to be put on the map. You are coming into a revolutionary period where the future of this nation may depend on you, and you need all the publicity that you can get.



EMERGING APPROACHES IN THE PROFESSIONAL EDUCATION OF VOCATIONAL-TECHNICAL TEACHERS

EMERGING APPROACHES IN THE PROFESSIONAL EDUCATION OF VOCATIONAL-TECHNICAL TEACHERS

Laurence D. Haskew*

The education of teachers has shared in the urgent movement to reconstitute American education which this country has undertaken in the past decade, and which continues at near fever heat. When we Americans spawn a movement of this character we do it on a free-wheeling, highly disparate and widely disseminated basis. Few participants are willing to await the evolution of orderly, cumulative attacks guided by a comprehensive rationale--although several such candidate enterprises are usually mounted. The net results are a tremendous amount of activity, a rather large volume of findings and successes on exceedingly narrow scale, a few programmatic refinements which are adopted widely enough to be called emergent, and an unmistakeable situation of flux without too much indication of what the flux is headed toward, if anything. This is the scene from which the present paper attempts to extract some of what may be emerging in teacher education that will be of value to this seminar.

Of first moment, in the opinion of this observer, is the increasing prevalence of, and successes in, what I shall call spot preparation. This begins with a teaching spot to be filled by relatively large numbers of people on short notice. For examples, in adult basic education or in junior high school programs in earth sciences or in motivation counseling for the ghetto child. The spot does not necessarily have to be a new one, but its emergency or semi-emergency cruciality is new. To meet the need properly-prepared persons are not available, but the positions are made attractive enough to enable recruitment of a cadre of people willing to essay the assignment. Some of the recruits are from education. Often, many are from outside. The variations in on-surface fitness for the assignment are tremendous; observers frequently wonder whether anyone was screened out, although often many were. For these sometimes motley but usually dedicated crews, intensive and typically very short-term training enterprises are put together. "Put together" is a deliberate designation here. As the enterprise is repeated, more careful and thoughted design of what is offered begins to appear, but improvisation is the initial rule in most instances. The recruits go through the spot training and enter upon the job they were trained to do. We have relatively little evidence upon how well they perform their assignments when measured against defensible criteria of achievement. We have ample evidence that judged in about the same way most teachers are judged, in great preponderance they are deemed to be successful by their employers.

Now, one is well aware that such spot preparation is viewed typically as a necessary, but temporary, return to the primeval in the education of professional teachers. That conclusion is open to serious question, as will be shown later, but even if it were true any analysis of what is emergent in teacher education currently must include witness to the vitality of spot preparation as a strategy. Therefore, some further look at its fitness and potential seems to be in order.

The appearance of "new" occupational demands upon the teaching profession is far from ended it appears. In fact, new demands may outnumber and outweigh old demands. Some of these new demands can be foreseen and time-spaced, comprehensive, and well-designed programs formulated to meet them. But teacher education has always had difficulty in recruiting young students to pursue such programs with vigor in the absence of demonstrable opportunity to engage in the work forecast as desirable. Spot preparation has all the motivation of immediacy and already-made decisions going for it. However, the chief point in its favor is that it fits the picture of teaching which is emerging--a picture of constant renewal, of perpetual refurbishing to meet recurring change in the shape of education itself. Also, it must be noted that spot

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preparation has been about as successful as traditional collegiate education in blending subject-matter reconstitution with methods of instruction designed to accommodate the basic objectives of such reconstitution. Further, many of those who have made initial entry upon the teaching profession through spot preparation enterprises are continuing their professional education, while previously-experienced teachers are following up on spot preparation in a new field in significant proportions. And, the procedures one witnesses in many spot preparation programs are far from primeval. Simulations, immersions in the real thing, employment of individualized education of the teacher as teacher, and many other modern devices are used extensively--with encouraging evidences that we may have only scratched the surface of what is possible in an intensive, highly-motivated experience for those who know they stand on a threshold.

A second prominent focus in teacher education developments is upon projection of the traditional initial preparation period into the workday world of teachers. The internship is the most common artifact of such projection, but other manifestations may have more significance. The basic yeast at work here is not so much the idea of providing an increased amount of supervised practice before the neophyte is turned loose by his preparing institution. Instead, it is the attempt to exploit more fully the educative advantages of alternation between periods of involvement, periods of diagnostic assessment of that involvement, study motivated by needs revealed in involvement, and then still more involvement. The formalities of fifth-year programs, official internships, and certification requirements have served to obscure, and perhaps in some cases to erode, this basic mutation but its outworkings are having growing impact upon the shape and nature of initial preparation for teaching.

This type of projection, by the way, has been hastened, and to increasing degree shaped, by entrance of the organized teaching profession itself into vigorous concern with influencing the nature of portal readiness for that profession. The forward projection of professionalization into years and into types of learning experience customarily devoted to on-the-job experience is calling upon teachers themselves--often under primary guidance by their profession and/or their employers--to assume new teamwork relationships with collegiate personnel, as well as to develop competences long assumed to be the prerogatives of the professor.

As one prepares a paper upon teacher education with obligation to make its content pertinent to those primarily interested in teachers for vocational and technical education, one perplexing challenge continues to arise. That challenge comes from knowledge that the pre-service sources for large numbers of teachers in vocational and technical fields have been different from the sources for most other teachers. Further, the controlling influences upon the shape and nature of preparatory, and to large degree in-service, education for these teachers have stood somewhat apart from those exercising direction for the great bulk of teacher education. Therefore, my third comment upon developments in teacher education is to report, in effect, a non-development. This particular observer can see few signs that what is generically applicable to all categories of education suitable for staffing vocational and technical education. Even those vocational education teaching specializations traditionally provided by collegiate courses terminating in baccalaureate degrees are showing few signs of gravitating toward the norms for other teacher education programs in the same institutions. The roles of collegiate study and academic credit in the readying of teachers to serve in the manifold other old and new varieties of vocational and technical education are still matters of debate, and of repeated special dispensations to overcome the restrictive impacts of general regulations. In short, practice seems to indicate that teacher education when modified by vocational and technical is a special case.

Yet, it may not be of such specialty it can be oblivious of certain powerful trends evidently running in the world of teacher education. One of these, already mentioned, is the growing concern of the organized teaching profession with who bears licensure as a member of that profession. While this concern is not likely to result in uniformity of preparation programs, it does head inevitably toward standardization of expectations. A second trend is toward attaching greater and greater moment to academic credit as essential undergirding for everyone who teaches. Then, there is an increasingly pervasive mood of intellectual orientation as the <u>sine qua non</u> of professional preparation for educational endeavor. And, no occupation which expects to recruit appreciable numbers of young entrants in the next decade can ignore the fact that most potential recruits are going to be enrolled or seeking enrollment in institutions of higher education--and hence subject to the reputation a given field bears in that environment. Citation of these trends is not to imply that the special-case character of teacher education for vocational and technical education should or is about to vanish, but to propose that what follows in this paper may be more pertinent in the future than it has been in the past.

The fourth development to which I wish to direct attention is the vigorous thrust of the academic in teacher education. This takes several forms.

One is quantitative escalation in requirements for undergirdings in the academic disciplines for the prospective teacher. Evidence of this abounds in certification and in degree regulations, in lengthened time periods required for completion of approved programs, and in the constriction of credit hour allocations to education courses. Pressures to further increase the content-coverage of initial preparatory programs continue strong. Also resulting are changes in the course patterns for graduate degrees.

Another form is emphasis upon higher standards for marks and upon attainment of elevated marks in courses by those expecting to teach. A third form shows up particularly in the courses in education where contributions of content from the academic disciplines are featured and where an emphasis upon intellectual constructs is markedly replacing the former devotion to cultivation of practitioner skills. Running throughout teacher education currently is a model of toughness which is supposed to represent jointure with the academic world, and such jointure is deemed essential.

However, the most significant manifestation of the academic appears through the aroused interest of some academicians in the field of teacher education. Various learned societies have become markedly preoccupied at the national level with the shape and content of education for teachers. Following the lead of earlier projects sponsored by the National Science Foundation, they have undertaken special efforts and offerings to educate or to re-equip teachers--in the process becoming tangibly concerned with what should be taught vis a vis their disciplines in elementary and high schools. This interest of learned societies has sparked multitudinous awakenings on institutional campuses. Also, those directing teacher education on the local campus have reached out increasingly to involve the subject matter disciplines in the design and execution of local programs, in some instances with marked success. The American Association of Colleges for Teacher Education and the National Council for Accreditation of Teacher Education have made almost a fetish of "all-college participation in the design and execution of teacher education." As is common in movements of this kind, many of the actual responses in teacher education programs appear to be chiefly mechanical or symbolic. But there is an ever-widening core of genuine and significant change being wrought in the strength of the disciplinary motif in teacher education.

However, a balancing emergence is now making its appearance. Emphasis upon the academic in teacher education has been, of course, an extension of what was occurring in the school and college programs of America. Many have been viewing that pendulum swing with considerable trepidation, fearing that ascendancy of the disciplines was being secured at the expense of two other vital concerns. One of these is that individuals in the schools should learn, and learn much more than cognitive command of the disciplines of human knowledge. The other is that the school should deal both directly and indirectly with the society-produced imperatives of our time. Within the very recent past, these concerns have come upon recycle into the educational scene, and the fifth development I choose for attention is the response of teacher education to the growing ascendancy of these concerns.

Attention to learning was made viable and "the modern thing to do" by technological developments which captured the imagination of influential Americans and sparked the entrance of major industry into the educative enterprise. But this would not have been sufficient if there had not existed, chiefly in the circles of professionals engaged in the education of teachers, a great desire to see that education become individualized and individualized learning become successful. They joined hands with the technologists--in fact, became technologists themselves--to exploit the application of invention and inventiveness to the problems of learning by pupils. The resulting story of hardware and software is a saga, still incomplete, too complex to treat here. The point is not alone that teacher education is preoccupied today as never before with conveying to students command of all sorts of technological aids to learning. More important are the emerging signs that this attention, coupled with the school-mandated devotion to a hundred varieties of "special" education, is making the child and his learning once more a center of emphasis in teacher education.

Renewed attention to society-produced imperatives was sparked chiefly by educators immersed in the desperation of large cities, and the spark was fanned into flame by powerful government and private foundation programs aimed at the melioration of disadvantagement of Americans. These programs called upon teacher educating institutions to produce many varieties of spot training endeavors wherein social setting loomed with high visibility. But the perplexities of education in the urban setting have produced much wider responses than these in programs for teacher education. The rise of new endeavors to equip teachers to deal with the disadvantaged child and

of programmatic changes to elucidate for teachers the nature of urban life has been little short of phenomenal in the last five years. As a consequence, we find a rebirth of generalized concern with the problems of society in the circles where curricula for teacher education are formulated and executed.

The significance of this twin development for teacher education in vocational and technical education should not be overlooked. What we see here is emergence once more of universal meanings for what is involved in being a teacher, regardless of position and regardless of specialization. To the extent that vocational education becomes part of America's common school, presumably it must shoulder its share of the comprehensive obligations of that school. Its teachers must, I believe, be capable of making unified cause with all teachers. Education for some teachers in vocational education, therefore, should become preparation for dealing constructively and generically with the learning of youngsters and with the imperatives of life in American society.

So far, the word "innovations" has not appeared in this paper. Yet those who requested its preparation asked that I address myself particularly to new departures in teacher-educating procedures which might afford clues to those addressing the problems before this seminar. Quite frankly, I am not enough of an historian to risk applying that word "new" to any approach or procedure. Instead, let us title this sixth development as the emergence of promising procedures for developing professionalized competence. Of great appeal is the one developed by Professor Robert N. Bush and colleagues dubbed "mini-teaching." A student executes, after preparation, a small segment of a teaching act in a live situation. This is videotaped, and the videotaped performance is then analyzed in depth by the student, his colleagues, and the instructor. It is in the analysis and the techniques of securing feed-outs from this fleeting experience that the genius of the procedure arises--which lies in making the experience one of continuous self-tutelage and practice as well as a parable of more complex endeavors. If space permitted, I could cite forty or fifty other employments of a similar procedure, some of which have produced evidence of efficacy with experienced teachers as well as with novitiates. Then, we have reports of significant success with procedures based upon students doing research-type analyses of apparently very restricted aspects of teacher behavior. The work of Professor Ned Flanders and colleagues directed at the questions teachers ask is a well-known illustration, but there are many others. Here we have a highly sophisticated complete methodology of proceeding from the concrete to the general, with reinforcement by behaviors undertaken by the students themselves. These two approaches, as well as several others, exploit the values inherent in the observation of recorded behaviors as contrasted with alive-and-then-talked-about performances. Then, almost everything that is being attempted to exploit the visual and auditory media in school, classrooms, is also being attempted in education classes in colleges and graduate schools. While we have many reports of novel attempts to afford face-to-face encounters between students and the real world which is teaching in its broader definition, there seems to be a diminishing confidence in the efficiency of sheer experience as a vehicle for constructive learning. Thus we witness increasing skepticism about the inviolability of the "student teaching experience" which consumes such a large proportion of the time and energy allotted to the undergraduate professional sequence. Many forays at substituting simulation, recorded situations, role-playing, and demonstrations are occurring, but with no definitive comparative results known to this author. In the literature one finds a few references to employment of independent study, programmed texts (or similar self-sufficient materials), and individualized-task procedures in college classes. Also found are many more portrayals of so-called bold plans to base professional education for teachers upon the information storage and retrieval syndrome. Also, the promise of applying computer-assisted instruction to teacher education is held to be high. With no sense of negativism intended, we must report that these prospectively revolutionizing vehicles for instruction are as yet only in the test and development stage and it would be misleading to report them as new departures in the education of teachers in the present decade. In the software echelon must be reported the many refinements of the old procedure of educating experienced teachers through group attacks upon very real and lively problems, with a deadline just ahead. And, strangely enough, the fact-giving lecture replete with the visual and dramatic aids provided by new media is a favorite "modern" procedure. Surely all must realize how sketchy the foregoing treatment has been, of necessity and of ignorance, in portraying what is really a scene of surprisingly widespread inventiveness in colleges and universities attempting to educate teachers. While no new gadget with a widespread acceptance similar to that accorded to practice teaching a few decades ago is visible as the result of this inventiveness, the field of gadgetry is hardly fallow.

The seventh development will be depicted very tersely. What used to be called inservice education is sprawled all over the teacher education front. Literally everybody is getting into the act. The variety of procedures and the multiplicity

of packaging defies description. The significance here, however, lies only incidentally in the procedures and approaches employed. What we really see is perhaps inescapable random and frenetic behavior as we enter, without too much conceptual readiness, a new meaning of education for teaching. Getting educated for teaching, from here on out, is predominantly what teachers do after they get jobs, not before. There is no termination point. Hence, teacher education becomes preponderantly focused upon the constant, cooperative endeavor with practicing teachers to keep up with the professional tasks they confront. Those meager four or five years when students are earning baccalaureate degrees compose already only a prelude period. Teacher education of the future, one would judge, will find its primary engagement in the forty years after the prelude is completed.

Frankly, the emergence chosen to conclude this paper is much more a hope than a tangible development. To educators involved in vocational education it should bring some degree of pride because it deals with the application of systems theory to the education of teachers. So far as I know, vocational education made the first comprehensive and consistent application of systems approach to the design and execution of instruction in this country. Of primeval nature when compared with modern sophistication in systems theory, these a priori basic elements of design wrought a rather remarkable story of success in vocational training, but somehow never got much of a trial in collegiate varieties of vocational teacher education. Now, particularly within the very recent past, we are witnessing a great display of interest within the confines of teacher education directed toward applications of systems theory to the ordering of college curricula for the initial preparation of teachers. This is a natural outgrowth of research going forward toward the elucidation of learning systems. So far, the tangible attempts have rested upon disparate theories of the instructional process and have addressed themselves chiefly to restricted portions of the total. But the emergence of conceptualization of instruction as a system rather than as a series of acts or an undefinable outpouring of artistry is increasingly discernible. Of course, we still search for an overarching theory to guide and test the design of systems. Several individual efforts to propose and test such theory have been made--notably illustrative are the ones of Professor B. O. Smith and the one of Hilda Taba. One outstanding and highly cogent group product has emerged. This is the formulation of an AACTE study titled as if it were preoccupied with instructional media. Actually what resulted with the leadership of Herbert LaGrone was a theory of what needfully enters into the education of a teacher and how these elements interact to compose a productive system. Impact of this study is apparently quite widespread and chief among those impacts is stimulation of systems design within teacher educating institutions. Perhaps the connection between systems theory and the real world of educating literally millions of people in tens of thousands of enterprises to be teachers is too tenuous and esoteric to bear the label of a bright hope of the future. But the possibility of making such connection is perhaps as good a note as any upon which to conclude this paper.

TRENDS AND PROBLEMS IN THE PROFESSIONAL EDUCATION OF VOCATIONAL-TECHNICAL TEACHERS

Herbert A. Tonne*

The Vocational Education Act of 1963 had a significant influence on vocational teacher education. Here are some trends and problems that have developed as a consequence of the Act and from the conditions which encouraged the passage of the Act.

1. There is no stronger tendency towards dogmatism now than there has been in the past, but it is persistent.

Note for example that even the head-counting process of the Census of 1960 is now estimated by some to have been 5,700,000 people short. It is not easy to count the people in the United States, but it is relatively simple compared to the more complicated elements involved in the determinations of data for education.

We do not know in detail the number of unemployed. We usually do not clearly define what we mean by unemployed. Therefore, there may be fewer unemployed or there may be more functionally unemployed depending on how we secure data. How many jobs could be filled if people really were willing to fill them and did not have government financial aid? Would we want the unemployed to take any job regardless of salary?

We do not know the degree of difficulty in training for specific and particularly lower level jobs because of increased tendencies towards automation. Can people be well trained on the job, and if so how long will it take? What is the relative cost of job training on the job as compared to school training? To what extent is the failure of youths to get jobs that seem to be available at least caused by lack of skill? To what extent is it prejudice on the part of the employer which would not be solved by skilled training? To what extent are poor work attitudes on the part of employees a cause of unemployment? Would skilled work training help and in what manner?

2. The old-time vocational teacher got his training in a normal school, and then took some summer school training in industry; he is a vanishing phenomenon.

This old-time vocational teacher was more definitely a practical arts teacher rather than a vocational teacher. But many people did secure entrance to employment because of the marginal vocational values of the work that they took with such teachers. He is being replaced by graduates of four-year schools, and by people coming in to teaching directly from industry. The present teacher often is a four-year graduate of a variety of programs and he usually did not specialize in vocational education. He therefore did not take a sequence of professional education courses to fit into the teacher certification pattern.

3. Even the supply of prospective four-year occupational teachers is dwindling.

This trend is true especially for men. The four-year colleges are setting up higher and higher academic standards. The result is that the kinds of people who typically became vocational teachers do not get a chance to go to college or if they do go they are inclined because of the emphasis on the academic, so effectively presented by Dr. Haskew, to be side-tracked to cultural courses. Colleges, as Dr. Haskew pointed out, are becoming tougher and they are eliminating those students who are inclined to be less interested in sheer academic success. Yet those who are dropped are often the ones who would be the most likely to be successful occupational teachers.

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The problem is not as acute in the larger cities because the place of the pre-service trained occupational teacher is being taken by men and women who have had several, and in many cases, many years of job experience. They may find the problems of securing promotion trying. The uncertainties of work in private industry cause them doubts. They are increasingly concerned about the social value of their work, and possibly most important, they recognize that increased income or its possibility in the future is not a predominant value for them. In those large urban areas where the salaries are adequate and where experienced workers are given advanced placement of the salary scale, and where it is thus possible for the experienced worker to transfer to education, the demand usually can be met. In many cases these teachers are more adequate than those receiving pre-service training supplied by the four-year college.

However, such men and women, as a general rule, are not interested in going to the smaller community. This tendency has drastically accentuated the problem of securing good vocational teachers in the smaller and rural type areas of communities. It is quite possible that the short supply of four-year college vocational education teachers and the unwillingness of the experienced urban person to become teachers in smaller communities, will make it necessary to accentuate the trend of vocational education away from the secondary school and toward the area vocational school. More efficient use can be made of the teacher, and the school is likely to be in an area more congenial to the person from an urban area.

4. There is a tendency for the junior college to become more academic and less interested in vocational work.

When the junior college began to become a frequent institution, after World War II, its emphasis was strongly upon terminal education. Now increasingly this school tends to give its major efforts to transfer education. Courses are being more and more influenced by what is acceptable at the four-year level. The drop-out rate in junior colleges is high, and unfortunately, the tendency for the terminal school students to drop out is greater than for those who have academic interests. The result is that junior college graduates are interested in transfer training. Some who take transfer curriculums do not go to senior college and enter industry, but many more who have taken terminal programs seek and secure entrance into some college.

In many areas, the junior colleges are still strongly directed towards terminal occupational education as their primary goal. This, however, is becoming less usual. This tendency is making it increasingly important for vocational area schools to develop, to take the place of the junior college, to the extent to which it is not meeting the demands for occupational education.

5. Awareness of and concern for unemployment among the disadvantaged and expecially among disadvantaged youth is probably the key trend in current education.

Most of us recognize that much of increased Federal aid for vocational education was provided with the objective in mind of reducing, if not solving the problem of unemployed youth. The problem of unemployment is serious among all youth, but is accentuated among those in racial minorities. The typical old-time normal school practical arts teacher, the four-year college graduate occupational teacher, and even the job-experienced person who goes into teaching usually does not achieve great success as a teacher of under-privileged prospective unemployed youth. Few make the adjustment to these types of students in the core urban centers. They usually carry on ill-equipped to do their job and after a few years find opportunity to shift to suburban types of schools. They do this partly because the salaries are better, but more so because the working conditions are for them more satisfactory. Basically, however, they move because they have a much better understanding of the types of youth they teach in the suburban type of schools and have the capacity to teach them. They question their ability to serve the core urban unemployed youth.

The development of teachers for these disadvantaged youths, especially young men, is crucial to the success of vocational education programs. Vocational education has been anywhere from modestly to dramatically successful in preparing youths with middle-class attitudes for jobs. Where there has been failure to give adequate education to these youths, the shop and the office itself has been quite competent in helping youth make the adjustment. Private industrial and business schools have been very effective with middle-class youth. The junior college has been a stalwart aid in helping such youths secure jobs. But thus far we have been at best only marginally successful in job training for the disadvantaged youth.

Possibly a part of the problem is that these youths do not need the kind of vocational education which we have been giving to youths successfully in the past.

possibly the kinds of jobs that are available to them do not require specific or extensive vocational education. Possibly a further development of fundamental education with occupational orientation is required for these youths. A reorientation of their attitudes toward work is necessary. Whatever the problem may be, possibly a combination of those suggested, the area of most acute need for innovation try-out, and experimentation is in this area. The teacher education institutions, entirely divorced from colleges, might be developed in living areas of the disadvantaged youth in connection with technical schools. In these schools, the prospective teachers would remain in their own communities and still be given the opportunity to develop some of the attitudes of the middle-class worker. Thus they would be able to translate these more effectively for the unemployed youth than the traditional teacher. It is worth a good and honest try. It has considerable potential for success if well planned and carried out.

6. The problem of occupational experience for the vocational educator has not, and is not being solved well in practice for many occupational teachers.

Everybody agrees that the vocational teacher should have good occupational experience. However, the fact is that the usual four-year college in vocational teacher education often has little job experience. Moreover, if we force him to get extensive job experience he often will be lost to teaching. In any case, he faces the problem not only of getting job experience but in many states of securing a fifth-year certification in order to become a permanent teacher. In order to secure an adequate income, he must often do extensive moonlighting. This is particularly true of male teachers. While such moonlighting provides job experience, it is often not the kind of job experience that is required as a phase of teaching preparation. No easy solution is in sight for this dilemma.

The college-oriented vocational teacher educator is reluctant to accept definite job experience requirements for certification. On the other hand, the rigidly job-oriented vocational teacher educator demands job experience, entirely irrelevant to the academic courses that the college may require. A possible solution is two types of certificates. One certificate would be for the teacher in the high school who is responsible for marginal vocational, pre-vocational, orientational vocational types of education and for the kinds of occupational education that involve simple or at least basic skills. Another certificate would be planned for those who undertake what might be called the "real job" subjects. For the pre-vocational teachers, little or no job experience may be required. For the so-called real occupational educator who increasingly is found in the vocational school, substantial minimum of job experience directly associated with the kind of teaching he is doing is of paramount importance.

We have not solved the problem of seeing to it that this job experience of the teacher is directly related to the work he is doing. For example, a teacher of data processing whose experience is limited to wiring may not be a good orientation teacher in the field of data processing. However, we are also loath to demand hands-on experience in all specific types of job subjects being taught. We can become so specific in our requirements that we make it impossible to secure teachers. The attitude, personality, and even the basic education of the teacher may be more important factors than highly specialized job experience in a world in which jobs are changing with dramatic frequency.

7. The systems approach as indicated by Dr. Haskew, is becoming of major interest to all teachers and especially to vocational teachers.

The development of electronic data processing and of programming has made us acutely aware that the process of learning if it is to use these devices must be highly systematized. There must be sequential learning based on an awareness of the objective to be attained in every step of the process. There must be constant feedback to make certain that the objectives for which the program has been organized are attained as a result of the learning process. The development of such sequential learning is difficult and is at best attained in the usual teaching situation in a marginal way. Such patterns while in some ways very efficient also tend to leave out the major marginal learnings which make people successful on the job and certainly successful in life.

Occupational teachers need to become more concerned about using the systems approach and with systemic processes in the teaching. A statement by Dr. Haskew at the close of his presentation is too important not to be repeated. He said "perhaps the connection between systems theory and the real world of educating literally millions of people in tens of thousands of enterprises to be teachers is too tenuous and esoteric to bear the label of a bright hope of the future." However, as Dr. Haskew implies the possibility of making such a connection should be carefully explored and thoroughly tested as one of the best possibilities for improvement in occupational education.

8. The strong emphasis that is being given to the need for specialists in school, in work experience, in occupational guidance, in follow-up, and in placement is very much in order.

It is difficult for the usual classroom teacher to undertake these tasks on a marginal basis regardless of his willingness. Job-school experience activities, which are not very carefully processed and which are not directed so that there is a real relationship between what happens in school and on the job, have little opportunity for success.

9. Terminology is an endless problem for all of us.

Semantic confusions probably cause more disagreements than any other single factor. The complaint against gobbledegook and pedagoguese has been perennial and needs to be emphasized. As vocational educators wisely secure the aid of the sociologist, psychologist, economist, and anthropologist in bringing depth to their analysis of occupational training, they are confronted with new terminologies and with new attempts of developing esoteric meanings out of simple facts. We do need the help of the specialists in the social studies and in statistics. However we must insist that they avoid the jargon of their specialty. We need to develop processes by which the services of these specialists who have much to offer to the vocational teacher are presented in language that can be understood and therefore used in relating our work to all life activities.

THE PURSUIT OF EXCELLENCE IN VOCATIONAL TEACHER PREPARATION

William B. Logan*

The success of vocational education is dependent upon the maximum development and utilization of personnel and the highest degree of cooperation between the vocational disciplines. As a concomitant, this seminar on vocational teacher education is a positive and very significant step in the direction of real unity among all facets of vocational education. Vocational teacher education has the most urgent need for attention of all the task areas of vocational education. Therefore, I wish to congratulate Dr. Robert Taylor, Dr. Neal Vivien, and the Center staff for the interest and foresight they have manifested in vocational teacher education as evidenced by this first seminar devoted to the total vocational-technical teacher education effort.

Teacher education, like all aspects of education today, is experiencing profound changes resulting from basic societal movements. We are all familiar with technological advances in industry and education, the knowledge explosion, in education, the emphasis on equality without sacrificing quality, the great breakthrough in medicine and the terrific pressure from minority groups as they seek a place in the mainstream of American society. All of these societal events have created an impact on professional teacher education. The challenge to vocational teacher education is to formulate and implement philosophies and practices which will provide the necessary leadership for vocational education.

In order to orient vocational teacher education toward new goals and expanded horizons we should first review the major developments in education, particularly vocational education; next, examine their implications for vocational teacher education; and finally, propose innovative and vital approaches for the future.

Initially, we must accept a proper perspective for vocational teacher education. Teacher education must necessarily be performed at all levels in all services. Also, teacher education must prepare people for counseling, supervisory and administrative positions in all the vocational services in order for the total vocational effort to achieve the objectives which must be met.

IMPLICATIONS FOR VOCATIONAL TEACHER EDUCATION

Several significant developments came out of the report of the President's Panel of Consultants on Vocational Education in 1962. Among these was the establishment of future directions for the preparation of vocational teachers.

I would like to mention four significant implications for vocational teacher education which grew out of the Report of the Panel and the Vocational Education Act of 1963. First, there was an emphasis on the individuals to be educated rather than the specific vocational services to provide the education. Second, there was the overriding concern for persons with special needs--those having academic, socio-economic, or other handicaps who are unable to be served by traditional approaches in vocational education. Third, there was a realization of the importance of post secondary vocational education which had to be recognized in the light of requirements of occupations for additional skills beyond the high school. Fourth, there was the specification of five areas of service vital to the total vocational education effort because of the importance of each to teaching and learning. Two of these areas emphasized were teacher education and leadership development. Also included were occupational information and guidance, research, and the development of instructional materials.

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Prior to the report of the Panel vocational education had developed rigid segregated disciplines, with little consideration of the complementary vocational services and with a minimum of communication and interaction between the services. Artificial, but rigid barriers were drawn. Vocational education provided specific training but, in so doing, often neglected the learner in favor of the process.

THE NEED TO UNITE IN VOCATIONAL TEACHER EDUCATION

The growth of teacher education has followed a similar partern. The disciplines became entities in themselves. They were compartmentalized and insulated from each other. As a result there exists today extensive duplication and overlapping of teacher education offerings in the various vocational areas. There has been an unnecessary proliferation of courses in our field.

Recently, a survey was made of course offerings in vocational education in representative institutions offering four or more vocational services. This survey indicated that much duplication exists. Courses in adult education, program supervision, organization and administration, and evaluation are offered simultaneously by several vocational services, often with similar titles and descriptions. On the other hand, few courses are offered in guidance, occupational information, or instructional aids. For example, in six of eleven major universities studied, duplicate courses were offered in adult education and organization and administration; and in five universities, duplicate courses were offered in supervision of vocational programs. Only in three of the eleven schools was guidance or occupational information courses provided as a part of their vocational teacher education curriculums.

In recent years teacher educators have felt pressures to improve the general education of teachers. Thus, in spite of the increasing body of knowledge with which we deal, we find we have less time to provide more educational experiences for prospective teachers.

As a result of the specialization of teacher training programs, limited primarily to inbred training by services, students have learned little of the background, objectives, and philosophies of the other vocational services. In many institutions it is possible for prospective teachers to graduate without every having shared a classroom with their colleagues from the other vocational areas. If we are to achieve real unity, the place and time to begin is in the teacher education institution, when the students are preparing for careers in vocational education. Planned and organized interaction through a curriculum is much more likely to yield success than chance interaction at vocational association meetings after the students have graduated and are engaged in full-time teaching.

Largely as a result of the Panel report the Vocational Education Act of 1963 was passed and the opportunity for long-range growth in vocational education was made a reality. As a result of this Act and the dedication of vocational leaders throughout America, vocational teacher educators have been challenged to work together cooperatively for the improvement of the total vocational field. The emphasis on vocational preparation should be increased. Artificially conceived boundaries should disappear. Unity and comprehensiveness should pervade vocational education.

ATTENTION TO SPECIAL NEEDS GROUPS

One of the groups of individuals singled out for special attention in the Panel report and in the Vocational Education Act of 1963 were persons with special needs. Individuals formerly excluded from occupational training because of some handicap setting them apart from the rest of the working world were given special consideration. It was recognized that in the past many jobs existed for unskilled workers with a minimum of education for whom the quantity and quality of education was not of critical significance. Thus, educators could devote most of their attention to the identification and edification of the academically talented. The lives, occupations, and aspirations of those adversely affected by the process were not of great concern to most educators. The realization of the impact of groups with special needs on the economy and on the integral fiber of the nation, culminated in an increasing emphasis for providing equal educational opportunities for individuals with special needs.

The pressures on society make it mandatory that education endeavor to meet the needs of these individuals. Vocational teacher education must assume the responsibility to individuals with special needs. Our previously narrow pattern of preparation of vocational teachers provided little opportunity for working with this special group. The Vocational Education Act of 1963 has made it clear that occupational training must be available to everyone who needs, wants, and can profit by it. These

new requirements impel vocational educators to meet the special problems of the disadvantaged in our society. To delay changes any longer will create even more undirected youth, unemployable adults, and an economically disabled group of great magnitude.

INCREASED EMPHASIS ON POST HIGH SCHOOL VOCATIONAL EDUCATION

The area of post high school education received special attention by the Panel and also by the Vocational Education Act of 1963. The Panel reported that automation, mechanization, and our advancing technology have increased the demand for highly skilled craftsmen and technicians. Much of this training is not feasible at the high school level.

Area schools, technical institutes and community colleges provide great potential for expansion of vocational education. This is not to suggest however, that such education should be moved out of the high school. The high school will remain the ideal and logical place to begin occupational preparation. Nevertheless, the trend in vocational education today is for increased emphasis on the post high school level.

Consequently, the preparation of instructors for post high school vocational-technical education programs must be given specific attention. It is doubtful whether the same program of preparing high school vocational teachers can be used effectively for those who aspire to teach in the community college or the area technical school. It will be necessary to identify the unique skills and knowledges needed by these teachers and to plan a curriculum accordingly.

The professional preparation of post high school teachers must concern itself with providing all the experiences needed by vocational teachers plus those specific or unique experiences required by the nature of the level of operation. Again, it is the individual needs of the group to be served that should dictate the nature of the preparation.

THE CONCERN FOR LEADERSHIP DEVELOPMENT

The designation of the five areas of service important to teaching and learning in vocational education by the Panel have significant relevance to vocational teacher education. In addition, to teacher education, a vital area for the future of vocational education is leadership development.

A large measure of the phenomenal growth and continued success of vocational education is directly attributable to the strong and able leadership provided by its pioneers. Their courage, wisdom, and foresight have awakened Americans to the values and goals of vocational education.

In the mainstream of this educational awakening, many new opportunities for leadership have been created. It is vital, however, that emerging leaders in vocational education possess qualifications and skills commensurate with increased responsibilities that have resulted from a developing technology and the enactment of needed legislation. A national need exists for educational programs designed specifically for the preparation of vocational supervisors and directors.

Specific job titles of positions requiring leadership personnel include local, regional, and state supervisors and directors of vocational education; supersivors and directors of post high and adult vocational education; and teacher educators. As openings in various supervisory positions occur, it is difficult to locate individuals possessing the breadth of experiences and understandings that are requisite for the jobs. Typically, the pattern of promoting someone to a position of leadership was to take a person from one of the specific vocational service areas. Most often, he was a specialist with little, if any, breadth of understanding of other vocational services.

Furthermore, the traditional programs in higher education are neither appropriate nor adequate for preparing leaders. Consequently the functions and characteristics of leadership need to be examined for their relevance to the prime objective: preparing leaders.

GUIDANCE AND CAREER DEVELOPMENT

The emphasis placed on occupational information and guidance has posed another challenge for teacher education. It is recognized that vocational teachers must be skilled in helping students make occupational choices and must be knowledgeable in patterns of career development. This task is becoming increasingly difficult as the assortment of occupations grows and the variety of skills required for the occupations

become more complex. Vocational teachers must be adequately prepared to direct students to resources which can provide answers to specific questions. They must become familiar with the process of career development. Moreover, the emphasis on individuals rather than occupations presents an additional problem in teacher preparation in this area. The variety of occupations with which the vocational teacher must deal has vastly increased laterally. Hence, their scope of occupational information must be increased accordingly.

INTEREST IN EDUCATIONAL TECHNOLOGY

Instructional materials have in recent years become viable tools in the learning process. The development and production of modern media have pervaded all areas of education. The Panel recommendation that instructional materials laboratories be established for the development and implementation of such materials reflects the understanding that a full utilization of all devices is requisite to the achievement of vocational education objectives. It was noted that development of instructional materials in the past was sporadic and uncoordinated, with the demand far outpacing the supply. Vocational teacher education has been given the responsibility of assisting in the development of materials and integrating them into the teacher education curriculum. Furthermore, of utmost importance is the realization by vocational teacher educators of the opportunities for using modern educational technology directly in programs of vocational teacher education.

RECOMMENDED PROPOSALS

In the light of the developments in vocational education in recent years and their concomitant implications some proposals for new approaches in vocational teacher education are suggested.

Of overriding importance is the need for all areas of vocational teacher education to work together to provide a true vocational teacher or vocational leader as the end product. As a recent Center proposal has urged there is a need to examine present vocational teacher education programs to analyze and synthesize the commonalities and difference in the programs of all services in order that more effective teacher training programs can be developed.

It is recognized that successful teacher education programs will provide the key to the future growth of vocational education. The duplication and proliferation of courses have undermined the total effort. In most cases teacher training institutions offer courses in methods, organization and administration, adult education and coordination techniques in all the vocational areas. This is duplication and proliferation, because there are common grounds. On the other hand, there are unique features concerned with each service and they should not be neglected. Moreover, the duplication of courses does not provide for the most efficient use of scarce, competent personnel, when a broad division of labor could be just as, or even more effective. A final handicap to the vocational education effort arising out of segregated vocational services is the lack of communication between prospective vocational teachers and leaders.

Therefore, I propose that the current curriculum structure in vocational teacher education be studied to determine what broad approaches to curriculum organization would be feasible and to determine what elements are unique to each of the services. The first step necessarily requires the statement of desired outcomes in behavioral terms. This involves determining the characteristics of the end product: the vocational teacher and leader. Moreover, these behaviors must be stated in measurable terms so that empirical evaluation is possible.

This does not mean to imply that all vocational teacher preparation should be done on an across-the-board basis. Through a flexible pattern of operation sufficient time should be allowed to permit depth of specialization in a specific vocational service area. A program of team teaching using specialists from the various vocational service areas might be used to accomplish both objectives--the general understanding and depth in specialization.

Similarly, the organization of leadership training in vocational education must be examined for opportunities for providing a broad approach in leadership development programs.

The challenge of unity is of critical importance in leadership preparation as many supervisory positions cut across traditional vocational disciplines. Therefore, this preparation must consider the duties and responsibilities of the positions that are to be filled and then provide the appropriate professional education experiences.

The emphasis in leadership development should be that of decision-making and problem-solving as these are the important responsibilities of leaders at all levels. As evidenced in non-vocational disciplines, leadership training must extend outside education and into business administration, sociology, and economics.

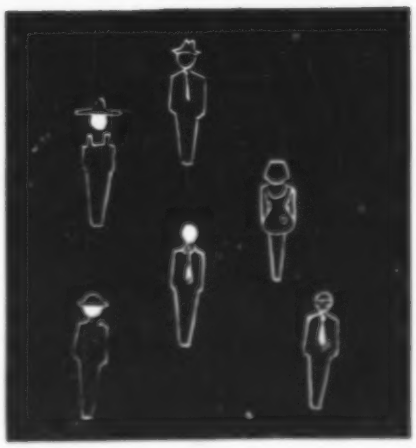
Following such an extensive and cooperative investigative effort I recommend that pilot programs be developed to test the advantages of a unified approach in teacher education and leadership development. The achievements accruing to vocational teacher education from this approach will include a more efficient use of teacher education personnel, a more broadly educated vocational teacher and leader, and more opportunities to explore the effective use of educational technologies.

In a unified approach to vocational teacher education modern training methods may be expected to be more effectively developed and utilized. This will be the result of freeing teacher education personnel to do this task. Many teachers have used such techniques as micro-teaching, team teaching, video-tape simulation, and other technological innovations. These should be studied cooperatively for expanded use in the vocational teacher education program. This will require systematic planning and coordination by the vocational faculty. The use of simulated materials has been undertaken in other disciplines, and in business, and industry with great success. Its adaptation to vocational education could be of great value by bringing reality and practicality to the college classroom and by providing a problem-solving approach in leadership training. Thus, the significant advantage to using educational technology in vocational teacher education is the opportunity to permit more extensive training within the limited time that professional education has been allotted.

Vocational teacher education has been challenged to make specific provisions for occupational guidance, groups with special needs, and post high school programs. All of these areas demand the broad approach in vocational teacher education. Therefore, I propose that the nature and content of occupational information and guidance be studied to determine its relevance to the broad area of vocational education. Next, I suggest that research be undertaken to determine teacher attitudes and interests toward groups with special needs, the adequacy of teacher preparation in this area, and the technology of teaching groups having special needs. Finally, I propose that the unique requirements for teaching post high school vocational education be studied for determining appropriate educational experiences for post high school vocational teachers. All of these recommendations should be implemented through the pilot programs proposed earlier.

The true measure of long-range success in vocational education is the achievement of goals. One important aspect will be the ability of the services to work cooperatively toward common goals. As an integral part of the total effort, vocational teacher education must provide the concrete beginnings toward unification. The duplication and proliferation by individual efforts is wasteful and inefficient.

If there is one dominant theme in vocational education today it is the pursuit of excellence, serving the needs of all without sacrificing quality. Teacher education must continue to play a leading role in this search for excellence. The future of vocational education will be determined, in large measure, by the program of teacher education. You as individual vocational teacher educators will determine how well the challenges will be met. You are shaping the program of vocational education for the future.



VOCATIONAL SERVICE AREA GROUPS: SESSION I

EMERGING APPROACHES IN THE PROFESSIONAL EDUCATION OF VOCATIONAL-TECHNICAL TEACHERS: AREAS OF IMPLICATION

AGRICULTURAL EDUCATION
BUSINESS & OFFICE EDUCATION
DISTRIBUTIVE EDUCATION
HOME ECONOMICS EDUCATION
TECHNICAL EDUCATION
TRADE & INDUSTRIAL EDUCATION

EMERGING APPROACHES TO THE PROFESSIONAL EDUCATION OF TEACHERS OF AGRICULTURAL OCCUPATIONS

Lloyd J. Phipps*

DEFINITIONS AND ASSUMPTIONS

In order to avoid misunderstandings, it should be indicated that the professional education of teachers, as it will be defined in this presentation, includes: 1) methods courses in the teaching of agriculture, 2) student teaching, 3) introductory courses in education and agricultural education, and 4) courses such as principles of education, educational psychology and history and philosophy of education. Also included in professional education will be a consideration of certain new ability needs not at present being included in general education courses, in agriculture and related courses and in the traditionally defined professional courses.

This presentation will be focused on agricultural occupation teachers, teachers educated to prepare persons for gainful employment in all occupations requiring knowledge and skill in agriculture subject matter. It will include teachers of:

1. production agriculture
2. agriculture supply
3. agriculture mechanics
4. agriculture products
5. agriculture resources
6. ornamental horticulture
7. forestry

It will even include teachers of agriculture who prepare persons who need knowledge and skill in agricultural subject matter for non-farm and non-agricultural occupations.

We must assume that teachers of agriculture in the future will increasingly teach in multiple agriculture teacher programs 1) at the secondary level, 2) at the adult level, and 3) at the post-high school, junior college or technical institute level. Many will teach in elementary schools, in special need programs, and in basic adult education centers. Many may even be expected to handle the community development programs, especially if they teach agriculture in urban areas or developing countries.

Within a relatively few years, the majority of the teachers of agriculture, may teach in urban areas and metropolitan areas.

In the future, because of team teaching and flexible scheduling they will be forced to relate more and better with other teachers, especially other teachers of vocational subjects. The agricultural occupations teacher in the future will not be expected or permitted to provide all of the vocational education a student preparing for gainful employment may need. He must be prepared to work in teams of teachers, especially teams of vocational and technical teachers.

If these assumptions and predictions occur, and they will occur because they are already facts in certain areas, although often not recognized, the professional

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education, the general education and the agricultural content education of teachers takes on new proportions. The needed changes in the general education courses will be discussed later this week. Let's focus today on the professional education needed for the changed and changing society and the changed and changing role of teachers of agriculture.

KINDS OF COMPETENCIES Needed.

A blueprint of the competencies needed and how they can be provided is impossible in the time available. Attention to a few general competencies and to a few specialized competencies of most immediate concern will have to suffice for now.

Teacher educators in agriculture have gained much fame, prestige, glory and even envy for their ability to develop certain competencies and attitudes in teachers. In modernizing the professional education of agricultural occupation teachers, these competencies must not be forgotten, overlooked or neglected for they are basic to good teaching in any situation, old or new.

Professional education for agricultural occupation teachers should continue, as in the past to stress:

1. Problem solving teaching.

2. Use of advisory committees of lay citizens.

3. Individual instruction at school, on the job and at home.

However, some new abilities or upgraded abilities are needed. Agricultural occupation instructors in the future will need education, or additional education, to develop the ability to:

1. Participate effectively and in a meaningful way in team teaching and flexible scheduling programs. They will need to learn what they can contribute and how they can contribute as a member of a team of vocational teachers, when all vocational students in a school are grouped in large and medium sized groups to receive the vocational education common to a relatively large group of the vocational students.

2. Work with agricultural industry personnel and with labor union personnel. These people often have value systems and ways of interrelating with others that differ from the value systems and interrelation patterns of farmers.

3. Use of new media such as computers, closed circuit TV, and programmed systems of instruction. Teachers will need to learn how to develop the "software" for computers.

4. Work in a multiple teacher, not just a two or three teacher department or program. This will mean specialization in content taught, grade level taught, age level taught, aptitude level taught and perhaps socio-economic level taught. We need to develop specialist teachers, but we must not permit these specialists to forget or neglect the Gestalt of agriculture teaching and vocational education.

5. Work with technicians and with teaching aids. The professionally educated teacher will need to be prepared to serve as an instructional administrator.

6. Provide service courses and units of instruction for a.) non-agricultural occupations and for b.) non-vocational oriented students.

DEVELOPMENT OF COMPETENCIES NEEDED

It is not the time or place to present a blueprint for the professional education of agricultural occupations instructors. A discussion of a sampling of the seemingly more important and potentially promising adjustments needed will have to be sufficient.

1. With the apparent perennial shortage of teachers and the geometric expansion of professional education competency needs, teacher educators must become more efficient.

   Micro-teaching or micro-experiences may be a partial answer. With systematic, well-structured micro-experiences the prospective or in-service teacher may progress faster and further than he would with longer, less systematic, less structured experiences.

Perhaps micro-experiences are the answer to providing prospective and in-service teachers with the practical experiences in agricultural oriented industries that they need to teach the new agricultural occupation areas of a.) agricultural supply, b.) agricultural mechanics, c.) agricultural products, d.) agricultural resources, e.) ornamental horticulture and f.) forestry. I advance the hypothesis that four weeks of systematic, well structured, intellectualized micro-experiences would be superior to two years of just working in an agricultural supply business.

2. The professional education of instructors of agricultural occupations must emphasize the development of general vocational education competencies and loyalty to vocational and technical education in addition to the development of agricultural education competencies and loyalty to agricultural education.

Teacher educators in agriculture must give more attention to working with teacher educators in other vocational and technical subject areas. There are many competencies that we are trying to develop in teachers of agriculture that are common to all vocational subject areas.

We not only need to develop teachers who can participate effectively in team teaching and flexible scheduling situations, but we must learn how to cooperate with the professors of vocational and technical education in other occupational areas in the use of team teaching and flexible scheduling.

3. In our professional education program, we need to accept the fact that we will have teachers preparing to teach and teaching in non-production areas such as agricultural supply, agricultural products, agricultural resources, and so forth. We have no choice but to adjust methods courses, student teaching experiences and other professional courses to meet their specialized needs.

4. In our in-service courses, we need to recognize that secondary teachers, junior college or post-secondary teachers and adult teachers do not encounter the same professional education problems.

5. We need to modernize our professional education courses.

Let's start thinking about and planning for the "tomorrows" instead of the "yesterdays" in our professional education programs for agricultural occupations teachers.

SUMMARY OF REMARKS AND DISCUSSION OF PARTICIPANTS

Cecil H. Johnson, Jr.*

Agricultural education majors should have the opportunity to associate with other education majors in introductory education courses. However, in methods courses, classes should be homogeneous in nature to create the correct climate for optimal student teacher benefit. Commonalities between agricultural education and other vocational education programs should be given increased emphasis in teacher training programs. In addition, commonalities between production agriculture programs and specialized courses in agriculture should be stressed in teacher education programs.

Team teaching between agricultural education staff members and other vocational education areas may be a solution to increasing the understanding of other vocational education service areas. Teacher educators should work with supervisors and administrators to determine the demand for vocational agriculture teachers in production agriculture and specialized areas and offer courses accordingly.

Further study of the application of micro teaching and other media to training vocational agriculture teachers should be conducted.

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OFFICE OCCUPATIONS TEACHER EDUCATION CLINICS SPEECH

Fred S. Cook*

It is quite obvious as I look at this audience and recognize most of the people here and say, "20 years of experience," this still makes me a youngster; but I am a grandfather. Twenty years spent in five different types of institutions. Twenty years spent under two distinctly different administrative structures for the Department of Business Education. Let me just describe very quickly the types of institutions and their organizational structures because these have a definite bearing upon the assumptions that I will make very quickly.

First of all, I was at a small church-related college that wanted neither business nor secretarial education. It was under the Business Administration Department; it was tolerated. Next, I was at a small church-related college that wanted secretarial training and they tolerated business education. I then served some time, if that is the proper way to phrase it, in a large prestigious institution which wanted business education with a question mark, perhaps--and they tolerated, in the School of Business, a secretarial program. The business teacher education was under the College of Education and shared with the School of Business Administration. I was then with another prestigious institution that wanted business education but would not tolerate secretarial education under any stretch of the imagination. The administrative office in which I served was in the College of Education. And finally, I'm with a very large institution that is not prestigious but wants and supports a business teacher education program and is willing to support a quality secretarial education program. The last institution, the one that will really be my case history and that I would like to emphasize in the remainder of my remarks is Wayne State University. This is a university which is not prestigious, but I firmly believe it shall be a great urban university in its time. It is this type of institution, I think, that is going to play a dominant future role in the preparation of people in the field of office and business education.

From these specific experiences, with five different types of institutions, with different backgrounds as far as their likes and desires for business teacher education and/or secretarial, and from working under schools or departments of business administration and/or schools or departments of colleges of education, I'd like to say that the program that we have at Wayne State University is an emerging program using some new approaches and some that are not so new. Based upon my own background there are three key assumptions that you can accept or reject as you see fit; these are key assumptions from which I am predicating the program that we're developing at the university and predicating on what I see as the role of the business teacher training institution in the seventies, if not today.

First of all, I maintain that the primary responsibility for the preparation of business teachers must be delegated to the chairman of the department of business teacher education. Now I'd like to repeat that one because I think this is fundamental to what I see as many of the problems that we have today in the preparation of business and office education teachers. The primary responsibility for the preparation of business teachers must be delegated to the chairman of the department of business teacher education and by this I mean decisions affecting general education; decisions affecting content (if this is what we mean by courses taken in the department of business administration); and decisions affecting the professional teacher education courses.

Secondly, the department of business education should be located in a department, school, or college of education because I think that is where the function is housed for the preparation of business teachers.

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Third, teacher education especially in a university must innovate: it must break new paths. It must not be concerned with just today's market. It has a very definite responsibility in attempting to try new patterns and new programs and new ideas for the preparation of teachers for today's as well as tomorrow's classroom.

Based upon the foregoing experiences and the three assumptions that I have outlined, plus a series of research and demonstration programs that it has been my good fortune to participate in in the last seven years (most of which have come out of the Department of Business Education since I have been at Wayne State with the help of a very effective staff), plus material that we have gathered obviously from personal data on social changes, technological changes, demographic data have all played a very vital role in the preparation of business teachers in an emerging urban setting. The following projects I'd like to just hit very quickly because I think that they have some implications for my thinking at least in terms of the ideas and some of the projects from which we are currently embarking in the field of the preparation of primarly high school, junior high school, and community college business teachers.

First of all, we have spent considerable time in terms of following up high school kids to find out what actually happens to them so we in turn can utilize these data in the preparation of teachers to know what kind of jobs and what kind of skills are needed. This was identified by the Opportunities and Requirements Study that was completed about two years ago.

Secondly, we have made an effort to develop a new curriculum pattern. Maybe new isn't the right word but a different curriculum pattern for boys and girls in the office, distributive and data processing occupations based on some of the data that has come out of the research studies. This means that we have also attempted, in the preparation of curriculum materials for the students, to prepare teachers to teach these new materials.

Third, we have conducted annually for three years in our market area, which is the Southeastern part of Michigan, data processing studies to determine the number and types of jobs available and the training demanded for those jobs. We also conducted at the national level through Delta Pi Epsilon a very small study to determine the status of data processing in the public schools of the United States.

We've also conducted in the Michigan area several office machines studies to determine the training required by businessmen and this again was done somewhat on the kind of equipment businessmen have and schools have. This was also done to a limited degree through the Balance Sheet under the auspices of Delta Pi Epsilon in an instrument that was sent out two years ago.

More recently, we have attempted to take a look at the preparation of junior high school as well as data processing teachers through two funded projects for what we have called the "Master of Arts in Teaching" programmed for individuals who have a baccalaureate degree with background in business administration, then want to specialize in one of these two fields. The junior high program and the data processing program are both funded under the Prospective Teacher Fellowship Program under Title 5 of the Higher Education Act.

Last, and the one I want to spend the most time on, is the Office Occupations Teacher Education Clinics that were concluded a year ago. These were national in scope and out of these clinics came a series of some 19 guidelines for the preparation of business and office occupations teachers. It is to these guidelines that I would like to address myself and to pull from them some "for instances" of what we're attempting to do, not necessarily as a result of the guidelines but to illustrate new and emerging things that we are attempting in the preparation of vocational teachers in the field of business, office and distributive occupations in an urban setting. I hasten to add that it's quite obvious I am putting a large emphasis on the urban setting, but I think it's also obvious to all of you that the predictions are that something like 80 percent of the total population of this country will be living in the urban areas in the middle seventies. So somebody should be putting attention on the preparation of teachers for the kind of schools where the teachers are going to be teaching.

The Office Occupations Teacher Education Clinics and the guidelines for vocational office and business education teachers were developed through a series of conferences and clinics that were national in scope and to which approximately 350 business teacher educators and city and state supervisors responded either in person or through mailing back guidelines or instruments that were sent to them for review and response. A number of you in this room participated in one or more of those clinics. I'm going to say parenthetically that I'm aware that these guidelines are no better than the people who developed them and no better than the institutions in which they are used;

it is quite obvious to all of us that were concerned with this that the 19 guidelines were a series of compromises as is to be expected when you have many people with a variety of backgrounds developing common materials, but I do believe that they serve some key points.

I'd like to spend the remainder of my time then on some of the guidelines not necessarily in their order of importance. We have deliberately done this both in the document and in this presentation to avoid a discussion, what I would call a "nit pickin," as to which should be first and which should be second and so on. I also hasten to add that the materials and the illustrations that I shall refer to in relation to these guidelines are not mine. These are ideas we have developed as a team at the university composed primarily of young people who are graduate students working closely with representatives from the Detroit public schools and Dr. Lanhan and Dr. Tryttea at the University of Michigan.

The first guideline I would like to talk about is what we have indicated in our conferences and in our own teacher training program, that a fundamental understanding of the field of business administration or the content of a business teacher should be in the field of business administration and I would like to add to that, "economics." This has had considerable implication and application at our university because we have had complete control of the specific courses and the number of courses that our business students take in both fields. We have attempted then to build a broad background in the field of business administration per se and a limited specialization in the so called secretarial subjects which may or may not be new. We've also, by virtue of the working relationship that we've been able to establish with the Dean of the School of Business, been able to teach sections of typewriting for business teachers and sections of shorthand for business teachers. I know that this is not new but I believe that it is something that many institutions should look at again as a pattern to project the kind and quality of skilled courses they want their prospective teachers to have, especially in institutions that are not allowed to have or are discontinuing secretarial programs.

We also had as a guideline in this series that occupational experience is essential for an effective business teacher. One of the items we have been able to work out in cooperation with the State Department of Education in Michigan is that if a teacher lacks specified hours of work experience, we can either as an undergraduate or a graduate provide them with supervised work experience for credit. They receive credit, they receive pay, and they receive credit towards vocational certification for occupational work experience. This is an area that I believe we need to do some very deep thinking on; I think we ought to have some subsidy research because the theory of occupational experience sounds very good, but I'm not so sure that in actual practice we get a return or the teacher gets a return on her investment for the time spent in the occupational experience.

Another guideline that we indicated was the teaching-learning process. It was essential obviously, that they (the guideline writers) should attempt to equip the teacher learner or the student teacher with an understanding of the sociological or psychological principles involved with the preparation, their preparation, and with the learning process. One of the innovations we are attempting to get underway next term is a course that will be taught by an education psychologist, a sociologist, and a representative of the Business Education Department. It will be a team teaching course for the so called core or professional courses required or experiences required for our prospective business teachers; we do not know whether it will work. We don't know how successful this will be, but it is an attempt to also provide the students themselves with the experience of seeing how team teaching works and also trying to provide, as far as I am concerned, more meaning to the education psychology work and the sociology work and tie it in directly with the content of the field of business and distributive education.

In the instructional process, or instructional procedures, guideline 7, we state a teacher should be proficient in the use of instructional procedures, media techniques for developing office skills and concepts. Like most of the guidelines this is quite broad, but we have stated that a teacher should not only know what to teach but how he can best help students develop skills and learn concepts. We further indicated that most individuals learn better when multiple media or stimuli are used in the process. So in our department two years ago we were fortunate to have some unexpended funds and an instructor who read about or who was, as a matter of fact, at the conference in Detroit where a young man from Stanford University talked about micro-teaching. This instructor became intrigued with the concept of micro-teaching: it was possible for him to then go to Stanford University, talk with the people there, learn about micro-teaching, and on his own initiative, bring these ideas back. We've incorporated, as of last year and on an experimental basis, micro-teaching in our methods courses in both office and distributive occupations. And we're in the process

this year of, through a grant, doing an evaluation of micro-teaching experiences for business and distributive education teachers.

We've always been a vocational education school of business and distributive education; and, if by some minor readjustments within a course called Principles of Business Education we can do an adequate job of indoctrinating or, if you pardon the expression, with my permission, "brainwash" the students on the concept of vocational education, we have done so. We've also worked with the State Department of Education--and when I say we, I mean all the teacher training institutions--so that it is mandatory that all the teachers who are coordinators in our state must have a separate course in principles of coordination which would be one part of this guideline.

Probably the guideline we have attempted to put the most time on in our undergraduate and our masters program is the one that states the teacher should understand, appreciate, and keep abreast of innovations, experimentation, and research in education and in office technology. We've done this through our own direct involvement in such projects as the Opportunities and Requirements for Entry Occupations and the current Senior Intensified Program and more lately the Moonshot or Mobels project that is being started. For example, we have some 20 office education interns out this term using specially prepared materials in their typing classes that we developed for the Senior Intensified Program; so they have been brainwashed. They do know that this is experimental work, that this is not traditional work, and that we are trying to get their evaluation of the material. They know they are part of an ongoing demonstration project.

The guideline that we have put probably more time in than all the others involved is what most schools would call today student teaching. I think that all critics of education have indicated they feel there is some relevancy to the field of student teaching. Starting this fall at our department none of our students are going to be student teaching; they're all going to be paid interns. Let me define the way we use this term at Wayne because this is not the way the AFT uses it. We say that a paid intern is an individual who has met all the basic requirements for certification with the exception of the student teaching experience. We then secure a teaching position for this individual for a high school semester despite the fact that we are on the quarter system. The intern has the responsibility for three classes, two of which are of the same preparation and the third a different preparation and duty. These are 40-minute classes (in the city of Detroit the typical class day is 9 class periods). They are paid two-fifths of a beginning teacher's salary and they get an emergency certificate during the time that they are doing their interning. We try to have teams of two interns in the school so that they fill the job of a full-time teacher. The school board releases the master teacher one period per intern for supervision. In our opinion, the master teacher is on a staff relationship with this individual rather than the typical or traditional critic-teacher line relationship with the student teacher. We also provide rather extensive, at least we think it is in terms of our sister institutions, comprehensive and intensive supervision from the university by specialists in the field of office and business education. Parenthetically, we are the only state institution where the department of business and distributive education, by policy, supervises their own student teachers. In all the other state institutions, the supervision of student teachers is done by people in the department of education who may be in any discipline. Then as an added device for supervising the interning experience, we do have an individual who has been hired full-time with a portable TV camera to go into the schools videotaping the intern in the classroom setting. This is frankly very, very new with us. We don't know how this is going to work: whether it is going to be good, bad, or indifferent. We believe it will provide us with an opportunity to give more intensive supervision with less staff expenditure of time and enable the individual student to receive a higher quality of supervision by being able to see a videotape playback and have a conference with the college supervisor and/or high school supervisor, as the case might be, as they watch the playback. To standardize and get some comparable data we're using an instrument that was designed by Stanford University as part of our micro-teaching program. We will, in our evaluation of our observation, be able to compare our data with the data that has been collected in the last three years at Stanford University. I might say that this rather scares the staff members who are doing the supervision of student teachers; and I am sure that when the student teachers see the evaluation form, it will scare them too because an A rating is number 10, but I suppose that everyone could easily say that that is equivalent to an A grade. At Stanford they apparently grade on a scale where only something like seven percent of the students get that kind of a rating when they see the observation. We hope all our students get A's, but we will not grade on a curve. This will be one of the problems of using an instrument designed at another institution, but it will provide the validity of the comparability.

The last item in terms of what we've attempted to do is on this guideline on equipment, which states that the teacher training institution should have up-to-date

office machine and laboratory facilities. We had a lot of discussion at the time this was being developed as to exactly what we meant by this, because there are some very honest differences of opinion on what kind of equipment you should have in a laboratory for the preparation of business teachers. There is an even greater difference of opinion on how much time an individual should spend on any given piece of equipment. This is especially true when we are talking about university credit. I'll have to say in all honesty that my own approach has been to do more of a survey apporach to the traditional office equipment, especially the different kinds of typewriters, adding and calculating machines, and the duplicating equipment. We have made our major effort in the past two years to get a data processing installation for the use of business teachers; this was accomplished this fall. For the first time, we have laboratory facilities only through unit record equipment, unfortunately, but at least it's a start. The unit record equipment is rented by the university specifically for the pre-service and in-service preparation of high school business teachers. Conversant with that, we do have two experimental programs, one at a very high level technical high school where we asked the students learning the process of data processing and another at an inner city school, Northern High School, where they are also putting them through the data processing program using the facilities on campus.

Another guideline is called "dedication to education." I think it is the most important one on the list, but the most difficult one to do anything with, and you almost have to have the luck of the Irish to even talk about it. The teachers should have experiences that will develop interest in and dedication to the education of students for occupational proficiency. It is very nice to say, I'm sure that we all agree with it, and I'm sure that if we could ever develop any kind of a device measuring instrument that would say yes, this person is really interested in working with kids, then all the other things that I have said can be forgotten because this individual will go out and do the kind of job that we're concerned with. You might find others in these guidelines that you think are more important or more imperative for you to emphasize in your own teacher training program. I've based my discussion and enumeration of these items as a type of case history of what we have at an urban university, and I remind you that they were based on three major assumptions which you may or may not want to accept. I would like to repeat those assumptions.

The first one is that the primary responsibility for the preparation of business teachers must be delegated to the chairman of the department of business teacher education. This means in terms of determining the kind of general education the person will have- i.e., how much economics versus something else; the content of the business administration program; i.e., whether it shall be almost exclusively in the field of secretarial, or the case in my institution might arise where there might be some other approach; and what we mean by professional education; i.e., shall it be the responsibility of a department of teacher education to teach the so called core courses; and finally the supervision of student teachers; i.e., the only responsibility the business department has is in the teaching of a method's course and then "kiss the kids goodbye" as exists in many of our institutions today. My assumption, which you may accept or not, is then that the responsibility must be delegated to the person responsible for the preparation of the business teachers.

My second assumption is that this department should be located in the department of business education.

The third assumption was that a teacher education program in a university must not be too concerned with today; they must be trying to take a look at tomorrow and breaking the traditions of a teacher training program. We're attempting to do that; we have attempted to do that in terms of micro-teaching, videotaping, and the kind of equipment that we have secured for our students.

I have one recommendation to make. It's a recommendation addressed to the National Association of Business Teacher Educators. Very specifically, if the pattern that is developing in the State of Michigan and the other state institutions is the pattern that is happening in the rest of the U. S., in that the business education departments are not the ones placing and supervising and following up the business education students--I think that NABTE ought to institute some kind of procedure for accrediting business teacher education programs, and one of the criteria for the presentation of the program ought to be the program that gives business teacher education departments the responsibility for the preparation of business teachers.

I have shared some experiences with you, tried to tell you the background of how some of these have been developed, and have gotten a challenge out in terms of NABTE which I hope someone will pick up. As Mark Anthony said as he crawled through Cleopatra's tent, "I didn't come here to argue but I am willing to try to answer any questions."

DISCUSSION FOLLOWING DR. COOK'S PRESENTATION

Marla Peterson*

Several questions about micro-teaching were directed to Dr. Cook. Participants wanted to know whether research has proven micro-teaching to be effective. Dr. Cook cited the Stanford U. research on micro teaching. Little concrete facts have come from the research but indications are that micro teaching has been effective in some "ways." These "ways" are yet to be identified. Micro teaching is not a panacea and cannot cure all ills but those who understand the micro teaching process should try it.

Discussion also centered around the topic of who should determine the curriculum content of a business education program at the university level. Dr. Cook stated that this should be the responsibility of the business education department chairman and his staff. They may consult other departments in the university but business education curriculum content decision and leadership should come from the business education chairman. One participant pointed out that business education can provide the leadership in many institutions but they do not have control.

Dr. Cook stressed the importance of examining the teaching minor in relation to the major. He feels teaching minors are ineffective unless they relate directly to the major. Example: Business Administration major and a marketing minor would be an appropriate combination. With the exception of shorthand, all business teachers should have a broad business background.

The remainder of the discussion was spent on the problems of training teachers of the disadvantaged. Suggestions for improving teacher training included:

1. Work for learning readiness.
2. Study to what degree we are controlled by a middle class job market.
3. Take a look at the social picture to determine if our students can get jobs once they are trained.
4. Take training programs for teachers of the disadvantaged out of the university and attach them to technical schools. (No consensus)
5. Let college students spend their senior year at an urban university.
6. Look at our ghetto teachers who are already successful.
7. Let effective teachers supervise student teachers instead of selecting supervisors according to years of experience.
9. Let business teacher educators coordinate the student teaching programs of their majors rather than the generalists.

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NEW APPROACHES IN THE PROFESSIONAL EDUCATION OF DISTRIBUTIVE EDUCATION TEACHERS

Richard D. Ashmun*

The preparation of this paper was somewhat difficult because deciding what is "new" is a matter of judgment, background and experience. How "new" is "new"? What is new and innovative to some persons has been a matter of practice to other persons for several years. Nevertheless, an attempt will be made to discuss some of the approaches to the professional education of distributive education teachers that are considered to be new or innovative. Most of these approaches have been tried or are being used in the professional preparation of distributive education teachers.

Background information for the paper was obtained from the reports of several seminars on teacher training, periodical literature, informal interviews with teacher-educators, and the experience of the writer. These procedures are evident in the professional training of undergraduate students, graduate students, and in-service personnel.

The major emphasis of the paper is on the development of the person rather than on any specific program. Business and industry are becoming more cognizant of understanding man's needs and his relationship to the organization in which he works. There is an increased importance being attached to human dignity and the worth of the individual, as well as preparing him to assume leadership roles in a democratic society. This means he must be familiar with the process of change, and even be a major element in bringing about change. It also means that the individual must learn to solve problems in this kind of system. All people, including teachers, will have more to say and will have more influence on the organizational structure in which they work. Teachers and lay persons, for example, will have a more direct influence on the total operation of the school system in which they teach. This is now evident in many schools which offer vocational-technical education programs, especially where advisory committees are active and influential.

The emphasis in the teacher-training of a vocational-technical teacher-training program should be to develop the potential of the teacher. Business and industry recognize the fact that a worker is hired for his potential. Therefore, if we believe we can learn from our friends in business, then we should also be concerned with developing to the fullest extent possible the teaching potential of a vocational-technical teacher. This means there must be close personal relationships between the teacher-trainer and his students within the classroom as well as outside the classroom. A helping relationship must be established to foster the growth of the student as a teacher and as a person.

It is evident that we, as teacher-educators, must be concerned about the needs of our students in order to develop their teaching potential. So often we transmit information (teach) to our students based on what we think they need to know and do rather than on what the student needs. In other words, we assign the priorities and seldom question our own motives, integrity, or commitment but may seriously question these things in our students. A recent report from the National Association of Manufacturers, "What's Wrong With Work?," includes reference to this element in the training of workers as well.

Basically, then, we are concerned with developing the potential of the vocational-technical teacher as a teacher and as a person to assume his proper role of training students for career potential in a democratic society. He will have personal needs

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and limitations which we must recognize and account for in our teacher training. We ought to help the student develop a value system and philosophy which will stay with him long after he completes a teacher-training program.

INNOVATIONS AT THE UNDERGRADUATE LEVEL

A feeling of belonging and involvement on the part of the student early in the teacher-training program is vital. This is often difficult, especially at a large university, because the students may not be too well known and have little contact with their adviser. Therefore, juniors and seniors in the program can serve as contact persons with sophomores and freshmen. Some schools have a variation of the "buddy system" where each lower-division student has a senior-division student assigned as a buddy to help him adjust and fit into the program in a way which builds confidence and a feeling of belonging.

One of the most important vehicles to use in involving students at the undergraduate level is the club. At the University of Minnesota, we have the Business and Distributive Education Club. It is not new but has served a worthwhile purpose in bringing our students together in a professional and friendly way. The students themselves take complete charge of the club under the direction of the major advisers. All students majoring in business or distributive education are identified early in the fall, and each receives a brochure which explains the club program. The brochures were developed by the students themselves. A series of social and professional meetings are planned and carried out through the year. An added incentive is that all seniors in distributive education receive memberships in State and National DECA paid for by the State Association. The club also serves as a means to develop the leadership potential of the students as all activities are initiated by the students. There is a transfer of initiative from the student when he begins a teaching career to his own students in developing the club program in his school. He has had the experience himself and can see the value of the club program in the total vocational-technical program as well.

One of the major problems is getting students to assume responsibility for their own development. Guidance from the teacher-trainer is of paramount importance. Time should be set aside to work with each student individually as well as in small groups. Therefore, skill should be developed in the use of guidance and counseling techniques. A danger is that too often we "teach" in a counseling situation rather than give the student an opportunity to ask questions and explore in order to better understand himself, his relationships with others, and his career goal as a vocational-technical teacher. Students want and appreciate the kind of feedback which helps them achieve their potential and improve their relationships with persons around them.

Another technique which helps the student to better understand himself is to give more responsibility to the students in evaluating each other. This must be a constructive kind of evaluation and is probably achieved most effectively during the senior year when the students know each other better. At the University of Minnesota, it is done in the methods course where each student is assigned numerous responsibilities all the way from written assignments and projects to conducting the class. In fact, during the last quarter in the three quarter sequence the class is conducted entirely by the students under the direction of the teacher-trainer. Toward the end of the quarter each student writes an evaluation of every other student in the class. The evaluative criteria are based on the student's performance while conducting the class, his contributions as a class member or project member, and his potential as a teacher. The criteria are listed in the form of a balance sheet with positive points on one side and suggestions for improvement on the other side. A composite of the evaluations is made for each student, prepared in written form, and discussed with each student personally. The reactions of the students are highly in favor of this type of evaluation as it is personal and helps them take a closer look at themselves and how they affect others. They more readily accept evaluation by their peers than by one person only, namely, the teacher-trainer. This does not mean the teacher-trainer does no evaluation. Student evaluations supplement the evaluations made by the teacher-trainer. Feedback to the student is essential in order to assist in the personal development process.

One important aspect of student evaluations is to give them the opportunity to evaluate the effectiveness of instruction on the part of the teacher-trainer. He should be evaluated in the same terms. This is one way to determine what is "needed to know" from the students' point of view. We cannot force the students to evaluate each other if we don't give them the opportunity to evaluate us as teacher-trainers. We should also be concerned about developing our personal and teaching potential.

Another aspect of evaluation is to what extent students participate in professional activities outside and beyond course requirements. One way of stressing the

importance of professional activities is to give some type of credit to the student for these kinds of activities. For example, students should be encouraged to join the State and National vocational associations as student members. They should attend meetings of these associations, as well as meetings of business and civic groups. They should take an active part in State leadership conferences--serving as judges for competitive events, customers for sales demonstrations, and observers at general meetings. They should take an active part in the specific vocational association at the state level, the state association of distributive educators, or state education association. Some may even attend the National Leadership Conference of DECA, a highly motivating event for any prospective distributive education teacher. Other activities may be attending PTA meetings, assisting in local club programs, advising junior achievenent companies, recruiting students, and many others. Credit may be given in the form of points based on the extent of personal time and involvement. These activities should be recorded and filed for each student to serve as a guide in determining his future potential.

Student teaching has typically been an integral part of the distributive education teacher-training program. However, some new approaches are evident. Most student teaching experiences have been obtained during the senior year. A disadvantage of this procedure is that the student has little exposure to the realism of teaching before this time in order to help him test reality and proceed further or change his goal. One procedure to help the student test reality is to have him spend a complete day or two with a vocational-technical teacher. He observes classes, talks to students, makes coordination calls, queries the teacher and in other ways follows him through an entire teaching day. He is exposed to the real-life teaching situation as it actually exists. This procedure also helps the student gain more from his professional classes, as he develops an apperceptive base or background information to aid him in his understanding of the teaching process.

Following through on the matter of early exposure to actual teaching, some colleges and universities have included a course in the junior year called "An Introduction to the Teaching of Distributive Education." This course is designed to acquaint students with the distributive education program as it is organized at all levels. Included in the course is a limited exposure to student teaching ranging from two to four weeks. The student is assigned to an experienced teacher for one class hour per day during the time allotted. He assists with assignments, makes up materials, plans lessons, and teaches a short unit. In this way the student gains a more extensive experience and insight into the teaching process before his full-time student teaching experience. Once again he has the opportunity to test the reality of a teaching situation and analyze his own goals and potential in light of this reality. It also adds to his competency as a full-time student teacher and as a full-time teacher.

A procedure which is not easy to carry out in all teacher-training programs is the scheduling of weekly seminars for student teachers. It is not easy because in some cases the student teachers are placed over a wide geographic area and it is impossible to get them all together on a weekly basis. Nevertheless, such seminars are valuable in providing a basis for discussions of problems and issues, planning, duties and responsibilities, analysis and evaluation of instruction. Students are given responsibility in the seminar for planning and leading discussions, as well as preparing materials to be critiqued by other seminar members. Fridays seem to be good days for such seminars as the procedures and problems encountered during the week are fresh in the minds of the student teachers. The seminar is a vehicle set up specifically to deal with student experiences and alleviates the necessity of spending time in other classes to answer questions and solve problems regarding student teaching.

A new approach used in the seminar mentioned above is the use of a video-tape recorder. During the full-time teaching experience, each student teacher's class presentation and activities are taped while the class is in session. The student teacher is given the first opportunity to view his presentation and evaluate it in terms of his effectiveness, responses from students, and the involvement of his students. In other words, he sees and hears himself in action as a teacher which up until now has been difficult information to obtain except under the most restricted conditions. Once the student teacher has viewed and listened to the tape, the other members of the seminar are permitted to view the tape and analyze the effectiveness. The tape adds realism to discussions because actual situations are the basis for such discussions. Problem-solving and decision-making activities can be built around these taped presentations. For example, the tape recorder may be stopped at any time to analyze and evaluate and then discuss how the presentation could be made more effectively, or deciding what the next step should be. Seminar members may also criticize constructively the presentation of the student teacher and offer their suggestions for improvement.

Another use of the video-tape recorder is the taping of short bits of actual teaching by an experienced teacher or student teacher. These short presentations may serve to illustrate specific methods such as role playing, field interviews, conference leading, project work, group discussions, etc. In each case, the role of the teacher becomes more clearly defined and realism is added to the teacher-training process.

We have practiced and given lip service to the process of determining objectives for many years. The determining of objectives is not new, but some of the procedures for determining objectives are new. An example would be the recent report by the Human Relations Resources Research Office at Georgetown University. The investigators, operating under a contract from the Army, based instructional aims and scope on three types of objectives--relevant work performance objectives, terminal student objectives, and enabling student objectives. Complete details of this report will not be discussed in this paper. The point is that our students should be made aware of and become competent in the determining of educational objectives by using new approaches.

A need is evident for utilizing and cooperating with other vocational services in vocational-technical teacher education. This is being done on many campuses. For example, our colleagues in trade and industry have developed excellent procedures for course analysis and construction. Students should be encouraged, if not required, to take such a course as they become acquainted with the process of determining course content, as well as gaining insight into procedures and experiences of persons in another field.

Somewhere in the teacher-training program there should also be an exposure to the educational programs of other vocational services. The student needs an understanding of such services in order to establish and carry out programs which cross vocational fields by cooperating with personnel in these services. Horizons need to be broadened in order to turn out a more productive and competent worker.

Another new approach to cooperation is evident in that persons teaching in academic fields are becoming concerned about the use of their disciplines in the world of work. For example, teachers of English are more concerned about the communications process in business and industry, and how they can help a person take his place in this environment. Future vocational-technical teachers should be made aware of the necessity to cooperate with these people on joint educational ventures. For example, having students do projects which incorporate skills from vocational as well as academic disciplines would be one approach.

The matter of cooperation may also extend to purusing majors in more than one vocational field, or at least minors in other vocational fields. This not only leads to increased understanding at the teacher level, but serves as a basis in preparing future supervisors and administrators of vocational education. It is evident that as vocational-technical programs continue to grow and expand there will be an increased need for persons who have training and experience in more than one vocational field.

A trend seems to be toward more involvement of undergraduate students in the activities normally carried out only by the teacher trainer. For example, students are consulted and even included when giving talks to outside groups or in recruitment activities. They may help explain the teacher-training program and answer questions from interested persons. Some teacher trainers have had students develop the outline for a presentation they were to give at a conference. Another example would be asking for their assistance in making changes in teaching a course. We should keep in mind that these people are on the receiving end and in many cases can provide valuable suggestions for improving and upgrading our own competency as teacher-trainers.

GRADUATE LEVEL AND IN-SERVICE PROGRAMS

These two levels will be discussed jointly because in many cases graduate students are also in-service teachers. They come back summers to pursue advanced degrees, or take courses concurrently with a full-time teaching position. This is assuming these people are willing and have the desire to seek advanced education. One of the greatest needs, and one of the greatest challenges, is to help in-service personnel see the need for keeping up to date. The success of our programs depends on how well our teachers train competent workers. In order to train competent workers, our teachers must keep abreast of not only the changes in business and industry, but the changes in educational processes and procedures as well.

The new vocational-technical teacher needs personal help during the first few months of his teaching assignment. In many cases, visits are made by state supervisory